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ANNUAL REPORT  
OF THE  
DEPARTMENT OF AGRICULTURE  
OF THE  
PROVINCE OF ALBERTA  
1907

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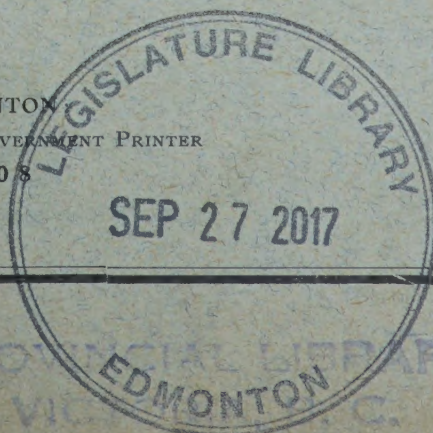
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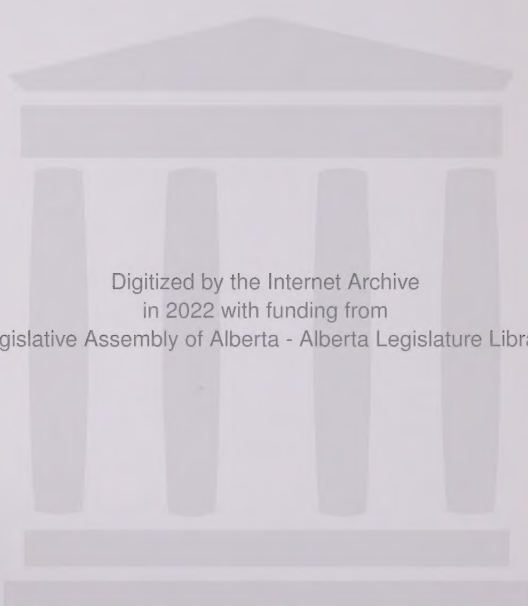
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# ANNUAL REPORT

OF THE

## DEPARTMENT OF AGRICULTURE

OF THE

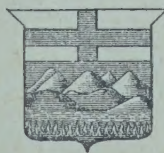
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## ERRATA.

On page 64 the average yield per acre of winter wheat for the year 1907 should be 23.02 instead of 20.66. This affects the average yield for the five years, which should be 21.94 instead of 21.09.

DEPARTMENT OF AGRICULTURE,  
EDMONTON, January 31st, 1908.

To His Honour

GEORGE HEDLEY VICARS BULYEA,

*Lieutenant Governor of the Province of Alberta.*

SIR,—

I have the honour to submit herewith the Report of the Department of Agriculture for the year 1907.

I have the honour to be, Sir,

Your obedient servant,

W. T. FINLAY,

*Minister of Agriculture.*







DEPARTMENT OF AGRICULTURE,  
EDMONTON, January 31st, 1908.

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*Minister of Agriculture.*







**REPORT**  
OF THE  
**DEPARTMENT OF AGRICULTURE FOR 1907**

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DEPARTMENT OF AGRICULTURE,  
EDMONTON, January 31st, 1908.

W. T. FINLAY, Esq.,  
*Minister of Agriculture.*

SIR,—I have the honour to submit herewith a report covering the work of the various branches of the Department of Agriculture for the year 1907. For convenience the report is arranged as follows:

1. Report of the Deputy Minister.
2. Report of the Dairy Commissioner.
3. Report of the Chief Inspector of Noxious Weeds.
4. Report of the Game and Fire Guardian.
5. Report of the Poultry Superintendent.
6. Report of the Recorder of Brands.
7. Report of the Superintendent of Fairs and Institutes.
8. Report of the Provincial Health Officer.
9. Report of the Sanitary Engineer.
10. Report of the Director of the Laboratory.
11. Appendices—
  - a—Report of the Alberta Horse Breeders' Association.
  - b—Report of the Cattle Breeders' Association.
  - c—Report of the Alberta Natural History Society.

I have the honour to be, Sir,

Your obedient servant,

GEO. HARCOURT,  
*Deputy Minister of Agriculture.*



### 1.—REPORT OF THE DEPUTY MINISTER.

SIR,—In dealing with the general work of the Department it is thought best to group it under the following heads:

- I.—Live Stock.
  - II.—Beef Commission.
  - III.—Crops.
  - IV.—Immigration and Colonization.
  - V.—Museum.
  - VI.—Fruit Experiment Stations.
  - VII.—Vital Statistics.
  - VIII.—Office Work and Organization.
- 

#### I.—LIVE STOCK.

The spring of 1907 will long be remembered by the stockmen of the province on account of the unprecedented severity of the previous winter and the long delay in the appearance of sufficient grass to make pasture. The unusually severe winter caused the death of thousands of cattle and, it is feared, put out of business many of the small ranchers. The loss of cattle sustained by ranchers varied very much, being estimated all the way from 5 to 90 per cent. This loss was not always lightest where the rancher was well prepared with abundance of winter food, nor heaviest where he was caught unprepared. Stock drifted before the storms to places where it was impossible to get feed to them, and often where feed could be had it was impossible to supply water and it is a question if many animals did not die from want of water as well as the absence of food. The loss of stock was particularly felt on account of the fact that large numbers ready for shipment were turned back on the range the previous fall because there were not cars available for shipping. A great many of the smaller ranchers have sold out their stock and are now devoting their attention to growing grain.

The severity of the winter was felt in many ways beside the direct loss through exposure. The calf crop was a very poor one. Many died shortly after birth, others were deformed and many cows slipped their calves before they were due. This state of affairs was equally true of other classes of stock. The stores of feed laid up as ample were gone before spring; the stock grew thin and were in very low condition when grass came. This condition of affairs seriously affected the flow of milk, with the result that all young stock that did survive other troubles did not make the growth they otherwise would have done. The same cause greatly reduced the quantity of cream delivered at the creameries, with the result that the butter output was greatly reduced. With abundant grass the balance of the season stock gained rapidly and the number of cattle shipped was surprisingly large, as will be found under the head of stock inspection. It is feared, however, that this number has been swollen somewhat by the sale of the breeding stock of some of the small ranchers that under more favourable circumstances would have been retained.



A large number of animals are being fed every winter and as a general rule feeders are finding this line of winter work proving fairly remunerative. There is usually abundance of feed for this work. Some are feeding hay largely and in the open yard. Other successful men are doing a certain amount of stabling. It is a line of work that should be encouraged, as it tends to distribute the work on the farm and market the stock at a time when there is a better demand for it.

Horses came through the winter in much better condition than cattle. The demand for heavy horses has been good throughout the year, not only on account of the large acreage brought under cultivation but for railway construction as well. The province is particularly suitable for raising horses, and as the cities and towns grow there is bound to spring up a brisk demand for the lighter class of horses suitable for city work.

The sheep industry seems to be on the decline and it looks as though there will be little improvement until farmers begin to enclose pastures for sheep with coyote-proof fencing. Sheep raising ought to prove a profitable business as prices have been maintained at a high level, and the climate is one well adapted to the pursuit of the industry. Sheep can live outdoors in any part of the province the greater portion of the winter. The demand for lamb and mutton is keen as may be surmised when it is known that carloads of Australian mutton were sold in the province last winter.

On account of the low prices prevailing farmers have been abandoning the raising of hogs. This surely is a mistake. Such a policy must produce high prices in a year or two when every one will be tumbling over the other to get into hogs again only to find another period of low values. The most money is always made by staying steadily with the raising of hogs. If prices are high it may be a good time to slack off a little in breeding operations so as not to have too many when prices are low, and when low prices are prevailing is a good time to increase breeding operations in anticipation of the higher values which are bound to follow.

#### IMPROVEMENT OF STOCK.

It is pleasing to be able to report that during the year numerous shipments of high class stock, particularly horses, have been made into the province. Some very fine Clydesdale and Percheron stallions have been brought in. There have also been a few Suffolks, Shires, Belgians and Hackneys. These additions will be of great value in improving the stock of the province, but in this connection attention should be called to that portion of this report dealing with the enrolment of stallions where it will be found that there are nearly two grade stallions soliciting business to every pure bred one. I regret to have to report the dispersion of the Rawlinson stud of Hackneys. For the most part the stock has gone into good hands and will form the nucleus of small studs in various parts of the province which in time will become centres radiating an influence for good.

Beef cattle are bound to steadily improve owing to the constant introduction of excellent sires and the fact that the number of men owning small herds is steadily increasing. Cultivated grasses are being more generally grown and better care taken of the stock.

#### IMPROVED DAIRY STOCK NEEDED.

Dairying is rapidly assuming larger proportions in the province, but it will never attain the place it should in those districts specially



adapted to it until greater interest is taken in the breeding and the feeding of and the caring for the milking stock. In the first place it is necessary to introduce dairy stock. This is because this class of stock has been specially bred and possesses great capabilities of producing a large and profitable flow of milk when given the proper care. In order to make a start with improved dairy stock it is not necessary to dispose of the present herd and purchase a new one. Few men can do this. The proper way is to begin with the stock one now has, only placing at the head of the herd a sire coming of a strain noted for milking qualities. There is no surer or more rapid way of building up a dairy herd than by using a sire possessing in his veins the blood of dams noted for their production at the milk pail. The sire is half the herd, so it is said, and will leave his impress on all the progeny, imparting to them some of the milking qualities in his blood. In addition to this it is necessary to weed out the poorest milkers in the herd. This can be done by weighing the milk night and morning and having it tested every week or so for butter fat. In this way it is possible at the end of the month or the season to know which are the best cows. The heifer calves from these cows should be reared to take the place in the herd of those cows that have not proved themselves suitable. The calves from the poor cows should be vealed or raised for beef. In this way it is possible to build up a most excellent herd with very little outlay. The Dairy Commissioner is organizing cow testing associations in connection with the creameries. It is a line of work that lies close to the heart of successful dairy work and is to be earnestly commended to every dairyman. Besides the testing of the cows it is necessary to provide abundance of good food for winter. It is not enough to bring cows through the winter alive. They must be brought out in the spring in the best of heart ready to take full advantage of the stimulus to milk production which the fresh grass gives. There is nothing equal to grass for producing milk cheaply and the greatest care should be exercised to have the cows go on it in such condition as to yield the very greatest returns. This may seem a strange doctrine to preach. No farmer, however, would think of bringing his horses through the winter in very low condition and expect to get much spring work out of them. His seeding would soon be away behind if he did. On the contrary he wants his horses in the pink of condition so they can do a full day's work. In the same way the cows should be brought through the winter ready for the fresh grass. The growing of tame grasses and roots will help do this, also warm comfortable stabling. These are matters which should be pressed upon the farmers attempting dairying.

During last year arrangements were made to assist in the transportation of a number of pure bred stock from Edmonton to Lesser Slave Lake and Peace River districts. It was too late to accomplish anything, however, and the work was left over until this year, when assistance was given towards the transportation of three pure bred animals to Peace River Crossing.

#### ENROLMENT OF STALLIONS.

The provisions of The Horse Breeders Ordinance require the owner of every stallion who keeps his horse for profit or gain to have him enrolled in the books of the department. If the stallion is of pure breeding, and the owner can produce a pedigree certificate issued by a stud book society recognized by the Minister of Agriculture, a certificate of enrolment, stating that his stallion is of pure breeding,



is sent to him. When such pedigree certificate cannot be produced then his stallion is enrolled as a grade, no matter what claims are made by the owner. A copy of the certificate of enrolment has to be posted on the inside and outside of every stable door where the stallion stands regularly for service, and must also be contained in all advertising matter. This protects farmers and others from unscrupulous claims of these stallion owners who say that their horses are pure bred when they are not. A number of the certificates sent to the department for examination during the past year have been found to be valueless, having been issued by stud book societies that are not now recognized. A number of certificates also showed that they had been tampered with,—the date of birth of the stallion having been altered. Grade certificates only are issued in cases of this kind.

The following is a summary of the stallions that have been enrolled during the past and preceding year:

ENROLMENT OF STALLIONS DURING THE YEARS 1904-1907.

BREED	YEAR			
	1904	1905	1906	1907
Clydesdale.....	68	25	81	86
Percheron.....	16	10	35	56
Shire.....	10	4	10	18
Standard Bred.....	8	2	10	15
Hackney.....	5	1	2	8
Thoroughbred.....	3	1	10	8
Suffolk.....	3	....	3	4
French Coach.....	2	2	2	....
Belgian.....	1	....	2	9
French Draft.....	2	4	5	2
Cleveland Bay.....	....	....	1	....
French Canadian.....	....	....	1	....
German Coach.....	....	....	....	2
Total Pure Bred.....	118	49	162	208
Grades.....	151	98	329	334
Total Enrolment.....	269	147	491	542

Total Enrolment in four years, Pure Bred..... 537

Total Enrolment in four years, Grade..... 912

Grand Total..... 1,449

It is pleasing to note that a somewhat larger percentage of the stallions enrolled during the year 1907 were of pure breeding than was the case in 1906. It is to be hoped that this is the first awakening of our farmers to the need of improvement along the lines of breeding horses. The figures given in the table above are sufficient to set anyone thinking, and especially so when one considers the excellent opportunity existing in the province for breeding horses.

ANIMALS RUNNING AT LARGE.

The provisions of The Stray Animals Ordinance require the finder of any estray animal, which cannot be driven away from his premises, to notify the owner, if the owner is known to him. If the owner is not known or refuses to remove the animal upon being



notified the Ordinance requires the finder to send a notice giving a complete description of the animal to the Department of Agriculture for publication in the supplement to the official gazette. This notice is published in two consecutive issues of the Gazette, and if no claimant appears within two months after the insertion of the first notice the finder makes application to a justice of the peace to have the animal sold. The proceeds of the sale are disposed of: First, by paying the expenses of the justice and the finder, and the balance, if any, is sent to the Department of Agriculture, where it is held in trust for twelve months before being transferred to the general revenue of the province. If the loser of an animal makes application to the department for the balance of the proceeds of the sale any time within twelve months and can furnish proof of ownership, the balance is paid over to him.

Some complaints have been made by finders of estray animals that the amount allowed for keep is not sufficient to pay for the food the animal eats. It must not be forgotten that the object of the Ordinance is not to encourage the taking up of estray animals by offering remunerative payment for their keep but rather discourage this. However, when an estray animal cannot be driven away from the premises of the finder, provision is made whereby he can dispose of it. Advertise the animal and thus give the owner an opportunity to locate his animal. At the same time the finder is allowed some compensation for his care. All estrays must be advertised in the supplement to the official gazette, a copy of which is sent to all the postmasters, R.N.W.M.P. and justices of the peace in the province.

During the year 1907, 612 head of cattle, 308 horses, 3 pigs and 1 sheep were advertised in the supplement to the Gazette. Of this number 65 horses and 119 cattle were sold. The remainder of those advertised were returned to their owners.

The following is a statement showing the details of all the sales of animals taken up and sold under The Stray Animals Ordinance:



SALES OF ANIMALS UNDER THE STRAY ANIMALS ORDINANCE, 1907.

JUSTICE	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Proc'ds of Sale	Sent to Department
D. Davidson.	Daysland	Cow, mulley, black, white on belly	Nov. 10, 1906	Jan. 15, 1907	Mar. 30, 1907	\$14.25	\$ .50
"	"	Cow, red and white, stub horns, about six years old, indistinct brand	Aug. 1906	Feb. 15, 1907	Apr. 23, 1907	29.00	17.18
"	"	O H, quarter circle over, first letter or figure of brand cannot be read.	June 6, 1906	Jan. 31, 1906	Mar. 6, 1907	30.00	15.63
"	"	Steer, red, white spot on belly, three years old, unbranded.	June 26, 1906	July 14, 1906	Apr. 6, 1907	30.00	16.35
"	"	Mare, brown, three years old, weight about 1,000 lbs., no visible brand.	Nov. 12, 1906	Jan. 15, 1907	Apr. 13, 1907	10.00	.75
"	"	Calf, bull, black, no visible brand.	Nov. 12, 1906	Jan. 15, 1907	Apr. 13, 1907	14.00	1.18
"	"	Heifer, red, one year old, no visible brand.	Feb. 12, 1906	Apr. 30, 1907	Oct. 8, 1907	24.75	12.25
J. A. Connelly	Strathcona	Steer, body white and red, white head, three years old, no horns.	1901	Jan. 15, 1907	Mar. 26, 1907	26.00	10.35
"	"	Mare, cayuse, bay, face and feet white, about seven years old, indistinct brand on right shoulder.	Nov. 1906	Dec. 15, 1907	Apr. 6, 1907	37.00	21.95
Chas. B. Phillips.	Asker.	Horse, brown, white face, two white spots on left side, branded N 6 on left shoulder.	Jan. 5, 1907	Jan. 31, 1907	Apr. 20, 1907	11.25	.....
"	"	Steer, red, intermixed with grey, one year old, horned, indistinct brand on right hip.	Jan. 5, 1907	Jan. 31, 1907	Apr. 20, 1907	10.25	.....
"	"	Heifer, red, with a few white spots, mulley, one year old, indistinct brand on right hip.	Dec. 20, 1906	Feb. 13, 1907	Apr. 20, 1907	11.75	15.15
"	"	Calf, heifer, red with white spots, white star on forehead, ears are either cut or frozen off, about ten months old, indistinct brand on right hip.	Feb. 1, 1907	Feb. 15, 1907	Apr. 20, 1907	30.00	18.50
"	"	Mare, dark brown, shod on front feet, weight about 800 lbs.	Feb. 10, 1907	Feb. 28, 1907	May 4, 1907	32.50	.....
"	"	Mare, sorrel, branded H E, monogram on left shoulder.	Nov. 1, 1906	Dec. 15, 1907	Apr. 23, 1907	11.00	.....
"	"	Cow, red, calf at foot, no visible brand.	Nov. 1, 1906	Dec. 15, 1907	Apr. 23, 1907	10.00	.....
John McKenty.	Lacolle	Heifer, roan, one year old, no visible brand.	Fall, 1905	Mar. 15, 1907	June 1, 1907	20.00	8.89
"	"	Steer, red and white, rising three years, no visible brand.	June 1907	July 15, 1907	Nov. 9, 1907	15.50	10.68
"	"	Horse, sorrel, with light mane and white strip down face, about six years old, branded lazy reversed C, C monogram, on right hip and horseshoe on right shoulder.	May 1, 1906	Aug. 15, 1906	May 1, 1907	55.00	45.15
John Benson.	Medicine Hat	Mare, white, branded P on left stifle.	May 1, 1906	Aug. 15, 1906	May 1, 1907	55.00	45.15
"	"	Mare, roan, branded spur on left thigh, with colt at foot.	Apr. 1, 1906	Oct. 31, 1906	Apr. 27, 1907	15.00	10.00
W. B. Gray.	Stettler.	Gelding, grey, flea-bitten, aged, one ear split, unbranded.	July 15, 1906	Nov. 23, 1907	Mar. 23, 1907	46.25	30.93
"	"	Steer, white, four years old, indistinct brand on left hip.	Oct. 31, 1906	Jan. 15, 1907	Apr. 6, 1907	58.00	41.28
"	"	Mare, light bay, three years old, no brand.	Nov. 15, 1906	Feb. 15, 1907	Apr. 6, 1907	17.00	3.89
"	"	Heifer, white, two years old, branded open A H, bar under, on right ribs	Nov. 15, 1906	Feb. 15, 1907	Apr. 6, 1907	20.00	6.82
"	"	Heifer, red, dulpap cut, half circle cut out of right ear, no visible brand.	Nov. 17, 1907	Jan. 31, 1907	Apr. 6, 1907	16.00	3.55
"	"	Heifer, red, white star on forehead, no visible brand, with red heifer calf at foot.	Jan. 17, 1907	Jan. 31, 1907	Apr. 6, 1907	29.50	4.71
"	"	Cow, light red, white star on forehead, right ear cropped, no visible brand.	Jan. 17, 1907	Jan. 31, 1907	Apr. 6, 1907	35.00	21.95
"	"	Steer, red, three years old, indistinct brand on right ribs.	Jan. 17, 1907	Jan. 31, 1907	Apr. 6, 1907	36.00	22.98
"	"	Steer, white and red, three or four years old, no visible brand.	Jan. 17, 1907	Jan. 31, 1907	Apr. 6, 1907	20.50	7.91
"	"	Cow, mulley, black, white face, rump and tail, no visible brand.	Dec. 1, 1906	Feb. 28, 1907	May 4, 1907	14.00	.....
"	"	Heifer, roan, short horns, one year old, no visible brand.					



## SALES OF ANIMALS UNDER THE STRAY ANIMALS ORDINANCE, 1907—Continued.

JUSTICE	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Proceeds of Sale	Sent to Dept.
W. B. Gray	Stettler	Heifer, red and white, white star on forehead, white belly and end of tail, no visible brand.	Dec. 1, 1906	Feb. 28, 1907	May 4, 1907	\$20.00	\$ 5.42
"	"	Heifer, dark red, one year old, no brand visible.	Feb. 5, 1907	Feb. 15, 1907	May 4, 1907	18.50	5.96
"	"	Steer, mullex, red, two years old, branded 3, quarter circle under.	Feb. 5, 1907	Feb. 28, 1907	May 4, 1907	30.00	15.12
"	"	Steer, red, branded 5 3 on left hip.	Feb. 5, 1907	Feb. 28, 1907	May 4, 1907	37.00	21.78
"	"	Cow, black, branded J L, small x in angle of the L, on left side.	Dec. 15, 1906	Mar. 15, 1907	May 25, 1907	26.00	13.45
"	"	Cow, mullex, black, branded P-R on right hip.	Nov. 15, 1906	Mar. 15, 1907	May 25, 1907	17.00	4.68
"	"	Heifer, black, one year old, no visible brand.	Nov. 1, 1906	Mar. 15, 1907	May 25, 1907	12.00	4.10
"	"	Steer, red and white, one horn partly broken off, branded 2 V on right ribs.	Aug. 15, 1906	Mar. 15, 1907	May 25, 1907	26.00	12.75
"	"	Mare, brown, white face, about four years old, weight about 400 lbs., branded O Z on left shoulder and lazy S, bar over, on right side of neck.	July 1906	Nov. 30, 1906	Aug. 10, 1907	64.00	57.90
F. Fane	Beaver Lake	Pack pony, black, aged, in poor condition.	June 1906	Aug. 31, 1906	Mar. 15, 1907	15.00	3.18
John Fleming	Vegreville	Pinto, pony, mare, aged, weight about 700 lbs.	Nov. 1905	Jan. 15, 1907	Mar. 23, 1907	67.00	53.06
"	"	Cow, red, branded 4, lazy S, on left side.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Cow, brown, branded F 2 on left hip.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Steer, red, two years old, unbranded.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Steer, red and white, two years old, unbranded.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Heifer, red and white, two years old, unbranded.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Heifer, red and white, one year old, unbranded.	Mar. 10, 1906	Nov. 15, 1906	Feb. 9, 1907	14.57	4.40
"	"	Calf, brown, unbranded.	June 17, 1907	July 31, 1907	Feb. 23, 1907	30.00	23.65
Francis Adam	Camrose	Mare, bay, one year old, unbranded.	June 17, 1907	July 31, 1907	Feb. 23, 1907	130.00	103.65
"	"	Mare, sorrel, branded reversed script E, joined to lazy S on left shoulder.	Sept. 1905	May 15, 1907	July 3, 1907	36.50	30.50
"	"	Pony, mare, dark brown, weight about 1,000 lbs., about twelve years old, branded O on right shoulder and P E or P L combination on left thigh.	Nov. 15, 1906	Jan. 15, 1907	Apr. 9, 1907	13.00	.....
Wm. H. Shaw	Sunny Slope	Cow, black, mullex, no brand, small and in very poor condition.	Nov. 15, 1906	Jan. 15, 1907	Apr. 9, 1907	8.50	.....
"	"	Calf, black, bull, nine months old, no brand.	Nov. 15, 1906	Jan. 15, 1907	Apr. 9, 1907	34.00	21.10
"	"	Pony, grey, about five years old, branded L 3 on left hip.	Nov. 20, 1906	Jan. 15, 1907	Apr. 9, 1907	34.00	21.10
"	"	Mare, grey, weight about 1,000 lbs., branded triangle, bar over, on right hip and 1 and 11, upper ends joined by half diamond, on left shoulder.	Nov. 15, 1906	Mar. 15, 1907	May 27, 1907	10.00	1.90
"	"	Steer, red and white, six or seven years old, branded 2 reversed L, on right ribs.	July 1906	Feb. 28, 1907	May 4, 1907	38.00	26.55
"	"	Calf, light red with a few white spots, one year old in spring, unbranded.	July 1906	Feb. 28, 1907	May 18, 1907	7.50	.....
Henry D. Mills	Wetaskiwin	Pony, gelding, cream, white feet, branded lazy J on right hip.	May 1906	Nov. 30, 1906	Jan. 26, 1907	21.50	8.30
"	"	Steer, red, about two years old, branded 5, inverted T, quarter circle over, on right hip.	Nov. 1905	Oct. 31, 1906	Jan. 28, 1907	15.00	2.27
"	"	Horse, bay, black points, three or four years old, unbranded.	Nov. 1905	Oct. 31, 1906	Jan. 28, 1907	64.00	17.09
"	"	Pony, sorrel, white face, aged.	Nov. 1905	Oct. 31, 1906	Jan. 28, 1907	6.75	.....
"	"	Mare, blue, branded 7 over E, R and 9 over 1 V on left shoulder.	Nov. 1906	Oct. 31, 1906	Feb. 20, 1907	31.00	16.35
"	"	Mare, bay, about three years old, branded R on left shoulder.	Apr. 1906	Oct. 31, 1906	Feb. 20, 1907	50.00	34.90
"	"	Mare, bay, white face, two white hind feet, left front foot white, weight about 900 lbs., branded B, quarter circle over, on left hip.	Oct. 1, 1906	Jan. 15, 1906	Mar. 4, 1907	82.00	56.75
C. S. Hotchkiss	Clareholm	Steer, red, star on forehead, three years old, no brand visible.	July 1, 1906	Nov. 15, 1906	Feb. 6, 1907	19.00	10.81
A. E. Green	Killam	Steer, roan, one year old, no visible brand.	Aug. 1906	Feb. 28, 1907	Apr. 30, 1907	17.50	4.83
W. E. G. Holmes	High River	Gelding, coming four years old, no visible brand.	Nov. 1906	May 31, 1907	Oct. 22, 1907	16.00	9.75
W. B. Thorne	High River	Pony, gelding, bay, a few white hairs around both hind feet, no visible brand.	Nov. 18, 1905	Dec. 15, 1905	Apr. 22, 1907	12.50	9.04



J. S. McDonald.....	Sedgewick.....	Pony, light grey, weight about 700 lbs., no visible brand.....	Nov. 10, 1906	June 15, 1907	Aug. 15, 1907	41.00	35.94
A. L. Cameron.....	Calgary.....	Gelding, brown, weight about 900 lbs., branded 7 L on right hip.....	Jan. 3, 1907	Jan. 15, 1907	Jan. 21, 1907	40.00	27.00
J. W. Silverthorn.....	Olds.....	Steer, red and white, two years old, top of right ear cut and marks on right jaw resembling bar.....	Nov. 1, 1905	Nov. 30, 1906	May 2, 1907	20.00	7.40
D. McLean.....	Lamont.....	Pony, dark grey, mare, weight 800 or 900 lbs., branded P on right shoulder.....	Dec. 1, 1906	Feb. 15, 1907	Mar. 30, 1907	77.00	64.49
"	"	Pony, gelding, grey, weight about 800 or 900 lbs., no visible brand.....	Dec. 31, 1906	Feb. 15, 1907	Mar. 30, 1907	25.00	13.77
"	"	Pony, gelding, grey, weight about 800 lbs., no visible brand.....	Dec. 31, 1906	Feb. 15, 1907	Mar. 30, 1907	36.00	24.50
		Pony, gelding, roan, with white face and four white feet, weight about 800 lbs., branded indistinct lazy I, lazy B over, lower letter or letters not plain, on right hip.....	Dec. 31, 1906	Feb. 15, 1907	Mar. 31, 1907	25.00	13.78
D. Markeberg.....	Markerville.....	Heifer, red and white, one year old, no visible brand.....	Dec. 18, 1906	Jan. 31, 1907	May 3, 1907	9.00	.....
P. B. Anderson.....	Bardo.....	Cow, heifer, red with white spots on tail and belly.....	Dec. 14, 1906	Jan. 31, 1907	May 3, 1907	7.50	.....
"	"	Cow, black and white, about nine years old, had a small bell attached with leather strap around neck.....	Nov. 1, 1905	Dec. 15, 1905	Jan. 15, 1907	7.50	1.30
Jas. Bradley.....	"	Steer, calf, one year old.....	Nov. 1, 1905	Dec. 15, 1905	Jan. 15, 1907	11.50	4.50
W. M. Graham.....	Wetaskiwin.....	Steer, small, white spot on body, rising three years, indistinct brand on right ribs.....	Nov. 1906	Jan 31, 1907	Nov. 11, 1907	24.00	9.70
D. A. Bickell.....	Lake View.....	Steer, grey, about two years old, branded two perpendicular lines, half circle connecting them at bottom, bar under, on right hip.....	Jan. 9, 1907	July 15, 1907	Oct. 26, 1907	16.50	3.70
A. W. Burton.....	Sedgewick.....	Gelding, bay, two years old, weight 600 or 700 lbs., no brand visible.....	May 24, 1907	Aug. 31, 1907	Nov. 1, 1907	45.00	41.60
R. Belcher.....	Ribstone.....	Cow, mulley, spotted, red and white, four white feet and white spot on face, five or six years old, branded F I P on left side.....	Nov. 5, 1906	Apr. 15, 1907	Sept. 25, 1907	27.00	20.80
A. E. Putman.....	Lethbridge.....	Saddle gelding, bay, bald face, four legs white to knees, aged, no brand visible.....	May 30, 1907	June 15, 1907	Sept. 14, 1907	13.50	7.10
S. R. Hodsen.....	Excelsior.....	Horse, light bay, star on forehead, white spot on nose, left hind foot white to fetlock, four years old, no visible brand.....	Nov. 1, 1906	June 15, 1907	Aug. 23, 1907	49.50	35.80
J. D. Pugh.....	Okotoks.....	Steer, roan, four years old, branded lazy V reversed I on left side.....	Oct. 3, 1906	Mar. 30, 1907	July 22, 1907	30.00	22.45
W. E. Turner.....	"	Steer, red and white, one year old branded inverted V, sickle, bar under, on right shoulder.....	Nov. 10, 1906	Mar. 30, 1907	July 22, 1907	9.50	2.50
"	"	Cow, red, seven or eight years old, branded goose egg on right hip, and bar on ribs.....	Nov. 10, 1906	Mar. 30, 1907	July 22, 1907	13.50	6.15
W. A. Robertson.....	Okotoks.....	Steer, four years old, branded 2 H, quarter circle over, on right ribs.....	Dec. 1, 1905	Feb. 16, 1906	May 28, 1907	40.25	30.70
	Ponoka.....	Pony, bay, saddle marks on back, weight about 1,100 lbs., nine years old, branded J on left leg.....	July 1906	Aug. 31, 1906	June 25, 1907	14.00	10.50
	"	Mare, sorrel, white face and left front foot, branded half moon on left shoulder, also branded on left thigh.....	June 28, 1907	Sept. 14, 1907	Oct. 16, 1907	30.00	23.30
Chas. H. Olsen.....	Millet.....	Pony, gelding, bay, three white legs and one white pastern, bald face, weight about 800 lbs., branded reversed D H monogram, on right shoulder.....	Aug. 5, 1907	Sept. 15, 1907	Nov. 26, 1907	15.00	10.41
"	Wetaskiwin.....	Cow, black, dehorned, no brand visible.....	Nov. 6, 1906	Feb. 15, 1907	June 1, 1907	16.50	5.00
"	"	Colt, three years old, light bay, white strip on face, hind legs white.....	Nov. 1, 1906	Mar. 30, 1907	Aug. 1, 1907	33.00	13.75
A. E. Milne.....	Mundare.....	Horse, bay.....	Nov. 1, 1906	Mar. 30, 1907	Aug. 1, 1907	5.00	.....
"	"	Heifer, red, with dark grey spots, two years old, no visible brand.....	Aug. 31, 1906	Mar. 30, 1907	May 23, 1907	18.50	7.80
"	"	Cow, black, with white belly, about six years old, cow had calf last winter.....	Aug. 31, 1906	Mar. 30, 1907	May 23, 1907	37.25	26.07
J. A. Young.....	"	Steer, red with white spots over body, about two years old, no visible brand.....	Aug. 31, 1906	Mar. 30, 1907	May 23, 1907	17.50	6.83
"	Mewassin.....	Cow, red, has horns cut, no visible brand, calf born after cow was advertised.....	Feb. 24, 1907	Mar. 15, 1907	May 25, 1907	25.00	15.82
"	"	Cow, red, no visible brand, with horns.....	Feb. 24, 1907	Mar. 15, 1907	May 25, 1907	17.00	18.02
"	"	Heifer, red, without horns, no visible brand.....	Feb. 24, 1907	Mar. 15, 1907	May 25, 1907	12.00	3.15
W. R. Charley.....	Pine Lake.....	Calf, about one year old, no visible brand.....	Feb. 24, 1907	Mar. 15, 1907	May 25, 1907	12.00	3.15
"	"	Heifer, small, yellow, one horn and half of tail off, three years old, indistinct brand on right ribs.....	Mar. 1906	Jan, 31, 1907	May 18, 1907	11.00	.....
"	"	Steer, red and white, two years old, branded 2 n quarter circle under, on right ribs.....	Dec. 1905	Jan. 31, 1907	May 18, 1907	13.75	.68
"	"	Steer, four years old, small, turned down horn on right, no visible brand.....	Sept. 1905	Jan. 31, 1907	May 18, 1907	12.75	.03



## SALES OF ANIMALS UNDER THE STRAY ANIMALS ORDINANCE, 1907—Continued.

JUSTICE	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Proceeds of Sale	Sent to Dept.
W. R. Charley	Pine Lake	Steer, red, three years old, horned, no visible brand. Steer, red and white, two years old, horned, branded L, inverted L, quarter circle over, on right hip, and inverted V, V, half diamond over on left side.	Sept. 1905	Jan. 15, 1907	May 18, 1907	\$26.00	\$13.88
Alex. S. Blackwood	DeWinton	Steer, roan, branded round topped A, K, bar over, on left ribs.	Fall of 1906	Jan. 15, 1907	May 18, 1907	24.00	11.93
Chas. A. Davis	Content	Steer, red and white, spotted, both ears cropped, nearly three years old, branded lazy Y on left hip.	Nov. 1906	Mar. 15, 1907	May 13, 1907	15.25	9.35
D. C. White	Cochrane	Steer, roan, four or five years old, branded D H on left ribs.	Oct. 15, 1906	Feb. 28, 1907	May 3, 1907	15.00	3.60
		Heifer, roan, two years old, branded F, wine glass Y, half circle over, on right ribs.	Feb. 4, 1907	Feb. 15, 1907	May 2, 1907	32.00	19.20
S. C. Stephenson	Markerville	Heifer, roan, two years old, last spring, branded B 8 C	Feb. 4, 1907	Feb. 15, 1907	May 2, 1907	20.00	8.55
C. O. Bjorblad	Bawlf	Steer, red and white spotted, small horns, no visible brand.	June 30, 1907	Feb. 15, 1907	May 1, 1907	14.00	.25
"	"	Heifer, red, legs white to knee, and white on belly, about eighteen months old, no visible brand.	Nov. 11, 1906	Nov. 15, 1906	Apr. 27, 1907	12.50	.35
"	"	Steer, black, three years old, ring in nose, had rope halter on and rope around neck, no visible brand.	June 15, 1906	Nov. 30, 1906	May 1, 1907	11.00	.....
Jas. Mundy	Lecluc	Cow, pure black, mulley, no brand.	July 1906	Nov. 30, 1906	May 1, 1907	20.00	5.47
		Mare, dark bay, weight about 900 lbs., no brand visible.	July 4, 1907	Sept. 14, 1907	Dec. 20, 1907	17.50	5.65
		Gelding, brown, one white foot, aged, branded W, lazy 7, under lazy E, the arm of the 7 connected at centre of E.	Dec. 1904	May 1905	Apr. 15, 1907	18.00	7.45
R. D. Fleming	Camrose	Calf, heifer, about six months old, white on half of tail, forehead and two forelegs white, no visible brand.	May 15, 1907	Aug. 31, 1907	Nov. 22, 1907	46.00	39.60
"	"	Pony, gelding, grayish, buckskin, about four years old, branded inverted V B monogram on right flank.	May 1906	Jan. 15, 1907	Mar. 26, 1907	14.00	.35
"	"	Heifer, red, coming two years old, no visible brand.	July 1, 1906	Feb. 25, 1907	May 18, 1907	34.00	17.80
"	"	Heifer, red, white face and lump under lower jaw, no visible brand.	Oct. 1906	Apr. 15, 1907	June 28, 1907	12.50	8.95
"	"	Calf, bull, red, about two months old.	Oct. 1906	Apr. 15, 1907	June 28, 1907	12.50	8.95
G. H. Darlow	Alix	Steer, black, Hereford marks, four years old, branded G B on right ribs.	May 27, 1907	Sept. 30, 1907	Nov. 30, 1907	7.00	40
Geo. A. Wells	White Brush	Horse, white, five years old, branded reversed inverted P, reversed B on left shoulder, quarter diamond on right shoulder.	Nov. 1, 1906	Jan. 15, 1907	Apr. 5, 1907	37.50	20.80
L. M. Doughty	Content	Steer, dark brindie, dehorned, white on forehead, under throat and under belly, white tail, no visible brand.	Oct. 1906	Nov. 15, 1906	Mar. 2, 1907	53.00	38.00
"	"	Cow, roan, four years old, small horns, white on forehead, with brown spot in middle of it, white tail, no visible brand.	Nov. 15, 1906	Jan. 15, 1907	Mar. 27, 1907	18.50	6.25
G. R. Severson	Stavely	Mare, pony, cream colored, branded X, six inches each way, on right hip, weighing 900 lbs.	Nov. 16, 1906	Jan. 15, 1907	Mar. 27, 1907	20.00	8.40
B. C. Smith	Lamont	Steer, red and white, mulley, branded 8 3 0 on left side.	Nov. 1906	Jan. 15, 1907	Mar. 13, 1907	26.00	16.35
"	"	Heifer, red and white, mulley, branded 8 3 0 on left side.	Dec. 1, 1905	Jan. 15, 1907	Mar. 9, 1907	15.00	3.05
F. Pinnell	Alix	Heifer, all black, mulley, two years old, no visible brand.	Dec. 1, 1905	Jan. 15, 1907	Mar. 9, 1907	21.00	10.55
	"	Cow, red, about four years old, branded lazy I on left hip.	Apr. 1906	Sept. 14, 1907	Nov. 16, 1907	17.50	15.00
	"	Steer, red, about four years old, blurred brand resembling 94 monogram, bar over, on right hip.	Nov. 20, 1906	Jan. 31, 1907	Apr. 9, 1907	15.50	2.95
Thos. J. Ross	Haynes	Heifer, red, one year old, branded R on right hip.	Nov. 15, 1906	Jan. 31, 1907	Apr. 9, 1907	45.00	31.45
"	"	Mare, pony, light cream, about seven years old, weight about 700 lbs., branded 5 U F on left hip, and lazy B on right hip.	Nov. 1, 1905	Feb. 15, 1906	Mar. 4, 1907	12.00	.....
"	"	Steer, red and white, three years old, branded N and a blotched letter or figure with bar underneath on right hip.	July 31, 1906	Dec. 15, 1906	Mar. 11, 1907	30.00	17.61
"	"	Steer, with red and white spots, coming three years old, notch in end of right ear, branded arbitrary sign, reversed K on left ribs.	Dec. 1, 1906	Jan. 15, 1907	Mar. 29, 1907	20.00	11.79
"	"		Nov. 1, 1906	Feb. 28, 1907	May 21, 1907	25.00	12.89



J. I. Brewster.....	Bowden.....	Mare, black, with low back, weight about 1,000 lbs., branded reversed inverted L I.....	May 1, 1907	Sept. 30, 1907	Dec. 16, 1907	20.00	11.40
Wm. Mohler.....	Round Hill.....	Heifer, black, white on belly, one year old, no brand visible.....	Nov. 2, 1905	Nov. 15, 1907	Dec. 14, 1907	14.00	3.65
W. G. Spalding.....	Poplar Lake.....	Horse, brownish bay, small star on forehead, left hind foot white, right fore foot white, weight about 900 lbs., branded L P on right thigh.....					
W. A. Robertson.....	Millet.....	Gelding, pony, bay, three white legs to knee and one white pastern, bald face, weight about 800 lbs., branded reversed D H monogram on right shoulder.....	Apr. 16, 1907	Sept. 14, 1907	Dec. 7, 1907	47.00	34.10
Jas. McNichol.....	Blackfolds.....	Steer, red, white tip on tail, two years old, blotched brand on right hip.....	Aug. 5, 1907	Sept. 15, 1907	Nov. 26, 1907	15.00	10.40
"	"	Steer, red, one year old, branded 7 A, bar over on left shoulder.....	Sept. 1, 1905	Dec. 15, 1906	Mar. 2, 1907	14.00	2.55
"	"	Pony, dark brown, tail trimmed short, about seven years old, weight 850 lbs., branded L on left shoulder and S, lazy U with the opening towards the S, on left hips.....	Apr. 1, 1905	Dec. 15, 1906	Mar. 2, 1907	7.00	.20
Thos. Ryan.....	Vegreville.....	Cow, thirteen years old, horned, grey, white and red color, no visible brand.....	Mar. 10, 1906	Dec. 15, 1906	Mar. 2, 1907	28.00	17.25
"	"	Steer, two and a half years old, red shoulders, hips, belly and tail white, stout horns, curved down, no visible brand.....	Aug. 1906	Dec. 15, 1906	Feb. 18, 1907	13.25	1.40
E. Good.....	Didsbury.....	Buckskin cayuse, mare, branded and vented, L B, branded V, quarter circle over, on right jaw, and half circle on right shoulder.....	Aug. 1906	Dec. 15, 1906	Feb. 18, 1907	13.25	1.40
"	"	Steer, red, two years old, white spot on forehead and some white on belly, no visible brand.....	July 10, 1906	July 31, 1906	Feb. 18, 1907	25.00	11.20
Wm. Ashworth.....	Marwayne.....	Pony, grey, about five years old, no visible brand.....	Oct. 15, 1905	Feb. 15, 1907	Apr. 15, 1907	12.00	.....
"	"	Mare, pony, dark chestnut, white strip on forehead, hind legs white to hocks, and one front foot white to fetlock, white tail.....	June 28, 1905	Dec. 15, 1905	Jan. 16, 1907	25.00	20.65
Jas. Hunter.....	Delnorte.....	Horse, broncho, black, white star on forehead, hind feet white, about three years old, unbranded.....	May 15, 1906	.....	Jan. 28, 1907	40.00	35.55
Alex. McRae.....	Okotoks.....	Steer, five or six years old, branded T, reversed L, small e in angle, C 5 on left ribs, J I U on left hip.....	July 1, 1906	Nov. 15, 1906	Jan. 25, 1907	70.00	55.00
"	"	Pony, white, mare, no visible brand.....	Dec. 1905	June 15, 1906	Jan. 21, 1907	44.50	34.20
W. W. Alton.....	Leduc.....	Mare, roan, branded reversed Z on left shoulder.....	June 1906	Aug. 31, 1906	Feb. 19, 1907	15.00	10.86
R. A. Kembry.....	Harmatton.....	Horse, roan, branded cross on left shoulder.....	Aug. 8, 1906	Aug. 31, 1906	Jan. 9, 1907	15.00	3.85
W. A. Chisholm.....	Nanton.....	Steer, red and white, three years old, indistinct brand on right ribs.....	Aug. 8, 1906	Aug. 31, 1906	Jan. 9, 1907	15.00	3.85
"	"	Horse, branded E on left shoulder, reversed E bar, bracket on left thigh.....	May 1, 1905	Oct. 15, 1903	Jan. 24, 1907	22.00	8.00
"	"	Steer, red and white, tip of right ear cut off, two years old, no visible brand.....	May 1, 1905	June 15, 1906	Feb. 16, 1907	16.00	11.40
David Mitchell.....	Innisfail.....	Pony, sorrel, white face, branded fish hook on right hip.....	Sept. 1, 1906	Feb. 15, 1907	Mar. 30, 1907	6.00	1.40
"	"	Cow, black, mulley, branded N, bar, N, on left ribs.....	Aug. 15, 1906	Sept. 29, 1906	June 15, 1907	21.50	5.95
"	"	Mare, sorrel, small white spot on forehead, weight about 1,300 lbs., about four years old, branded T, inverted T monogram, on right shoulder.....	July 15, 1906	Mar. 15, 1907	June 17, 1907	21.00	8.40
W. Parker.....	Medicine Hat.....	Gelding, light grey, aged, weight about 1,100 lbs., branded diamond, with T joined at top and inverted T at bottom of diamond, on left shoulder, and E on left jaw.....	.....	Sept. 5, 1906	June 15, 1907	99.00	85.28
Robt. Fairbairn.....	Warwick.....	Heifer, red, with white face, dehorned, about two years old, no visible brand.....	July 1, 1907	Aug. 15, 1907	Dec. 27, 1907	45.00	38.65
C. L. Peterson.....	Didsbury.....	Cow, black, mulley, white spot on belly, no visible brand.....	Nov. 1, 1906	Feb. 15, 1906	Dec. 30, 1907	15.00	4.12
"	"	Cal, red and white, spotted, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	17.00	5.31
"	"	Cow, white, small horns, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	8.00	1.12
"	"	Steer, red, mulley, one year old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	23.00	3.92
"	"	Steer, red, mulley, one year old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	19.00	4.94
"	"	Steer, with horns, one year old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	20.00	4.51
"	"	Steer, Hereford, one year old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	18.00	5.02
"	"	Heifer, red, star on face, white belly, two years old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	23.00	3.92
"	"	Heifer, one spot on shoulder, two years old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	22.00	4.10
"	"	Heifer, red, two years old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	29.00	3.11
"	"	Heifer, white, one year old, no visible brand.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	14.00	7.52
"	"	Cow, brown, white spot on right ribs, branded J A, quarter circle under, and S C on left hip.....	Nov. 1, 1905	Jan. 15, 1907	Apr. 11, 1907	12.00	6.44
John Benson.....	Medicine Hat.....	Mare, sorrel, white strip on face, branded 7 2 on left shoulder.....	July 1906	Feb. 28, 1907	May 8, 1907	17.00	2.70
"	"	Mare, grey, two years old, colt at foot.....	Jan. 1, 1907	June 29, 1907	Dec. 27, 1907	62.50	56.64
"	"	"	Jan. 1, 1907	June 29, 1907	Dec. 27, 1907	81.00	74.56



## ENTIRE ANIMALS.

The provisions of The Entire Animals Ordinance prohibits the owner of any stallion that is over one year of age from allowing his horse to run at large in any part of the province at any time. When these stallions are found running at large they may be captured, advertised in two consecutive issues of the Gazette, the same as estrays, and sold within twenty days after the first notice has been published. The provisions of the Ordinance also prohibit the owners of bulls that are over nine months of age from permitting such bulls to run at large. Provision is made for an exception to this by the creation of what is known as bull districts. Under clause 2 of section 4 of the Ordinance the Minister of Agriculture can, by publication in the official gazette, proclaim certain districts bull districts. In such districts bulls can run at large between the 1st day of July and the 31st day of December without being captured. When a bull is captured he is advertised and sold, the same as a stallion.

The following is a list of the bull districts created up to December 31st, 1907:

District No. 1.—All that part of the province lying south of township 34.

District No. 2.—All that part of the province north of township 33 and east of range 11 west of the fourth meridian.

District No. 3.—Townships 51, 52 and 53, in range 17 west of the fourth meridian.

District No. 4.—Township 34 in ranges 2 and 3 west of the fifth meridian.

District No. 5.—That part of the province bounded on the north by township 42, on the east by range 10, on the south by township 33, and on the west by the Red Deer River, as far north as township 36, to a point where the river crosses at range 22, then by range 22 as far north as township 42.

During the year 30 bulls and 12 stallions were captured and duly advertised in the Gazette. Of this number 4 bulls and 4 stallions were sold. The remainder were redeemed by the owners. The balance of the proceeds of the sale of the animals sold is held in the department in trust and will be paid to the original owner if application is made within twelve months after the sale took place. The following is a list of the sales under the Ordinance during the year:



## SALES OF ANIMALS UNDER THE ENTIRE ANIMALS ORDINANCE, 1907.

JUSTICE	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Proceeds of Sale	Sent to Dept.
Francois Adam.....	Camrose.....	Stallion, grey, one year old, unbranded.	July 17, 1906	July 31, 1906	Feb. 23, 1907	\$32.00	\$25.65
Henry D. Mills.....	Wetaskiwin.....	Pony, iron grey, stallion, half star on forehead, branded G over J on right hip.....	May 1906	Sept. 2, 1907	Feb. 9, 1907	38.00	10.59
S. G. Stephenson.....	Markerville.....	Bull, red, one year old, no visible brand.....	Aug. 31, 1907	Sept. 14, 1907	Nov. 22, 1907	11.00	.....
G. H. Darlow.....	Alix.....	Bull, red, with white head, stubby horns, ring in nose, about three or four years old, branded reversed G, reversed L, quarter circle under, on left hip.....	Jan. 1, 1907	Mar. 15, 1907	Apr. 15, 1907	25.00	8.45
J. J. Norris.....	Innisfree.....	Bull, black, one year old, branded O or buckle brand.....	.....	Jan. 15, 1907	Feb. 9, 1907	16.25	3.10
S. J. Layton.....	Taber.....	Bull, black, one year old, without horns, branded O or buckle brand.....	.....	Jan. 15, 1907	Feb. 9, 1907	16.25	3.10
P. J. Craddock.....	Morinville.....	Stallion, dark blue, branded M V monogram on right shoulder.....	.....	Nov. 30, 1906	Jan. 2, 1907	135.00	113.10
		Stallion, light brown, weight about 900 lbs., about seven years old.....	.....	Nov. 15, 1907	Dec. 19, 1907	48.00	8.95



## POUND DISTRICTS.

During the year application was made from five different localities to have pound districts organized. Of this number four were constituted. At the close of the year the following areas had been set apart under the provisions of the Ordinance in addition to those formed under the Village and Municipal Ordinances. The last four on the list are new districts:

No. 1.—Township 7 range 20 sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17 and 18. Township 7 range 21 sections 1, 2, 3, 10, 11, 12, 13, 14 and 15. Township 6 range 20 sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 27, 28, 29, 30, 31, 32, 33 and 34. Township 6 range 21 sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 and 36. Township 5 range 20 sections 1 to 36 inclusive. Township 5 range 21, east half.

No. 2.—Township 55 range 26 sections 6, 7, 18, 19, 30 and 31. Township 56 range 26 sections 6, 7 and 18. Township 54 range 27 sections 31, 32, 33, 34, 35 and 36 north of the Sturgeon River. Township 55 range 27 sections 1 to 36 inclusive. Township 56 range 27 fractional sections 1, 12 and 13.

No. 3.—Township 55 range 26 sections 1, 2, 3, 4, 5, 8, 9, 10, 11 and 12, and the south half of sections 13, 14, 15, 16 and 17. Township 54 range 26 north half of sections 31, 32, 33, 34 and 35.

No. 4.—Township 3 range 24 sections 21, 22, 23, 24, 25, 26, 27, 28, 33, 34 and 35. Township 4 range 24 sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 and 36. Township 5 range 24, all that part south of the St. Mary River. Township 5 range 23 sections 1, 2, 3, 4, 5, 6, 11 and 12, and that portion of section 7, 8, 9 and 10 south of the St. Mary River. Township 4 range 23 sections 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36.

No. 5.—Township 30 range 4 sections 1 to 24 inclusive.

No. 6.—Township 47 ranges 13 and 14. Township 48 ranges 13 and 14.

No. 7.—Township 51 range 24 sections 5, 6, 7, 8, 17 and 18.

In these districts 112 cattle and 36 horses were impounded and advertised in the Gazette during the year. Of this number 5 horses and two cattle were sold, the following being the details of the same:

SALES OF ANIMALS UNDER THE POUND DISTRICT ORDINANCE, 1907.

POUNDKEEPER	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Proceeds of Sale	Sent to Dept.
J. B. Wasden.....	Raymond.....	Steer, red, three years old, branded N P on left ribs.....	Jan. 1, 1906	Jan. 15, 1907	Feb. 11, 1907	\$12.00	\$ 1.45
"	"	Heifer, spotted red and white, two years old, branded shepherd's crook, reversed shepherd's crook, half circle under, on left ribs.....	Jan. 6, 1907	Feb. 15, 1907	Feb. 25, 1907	9.50	.....
Jas. Rodebach.....	"	Gelding, saddle pony, brown, light brown nose, small white spot on end of nose, roach mane, end of right ear split, weight about 850 lbs., branded reversed C, lazy T, monogram, on left thigh.....	Oct. 15, 1907	Oct. 30, 1907	Dec. 3, 1907	42.00	32.80
"	"	Mare, brown, white strip on face, one year old, branded reversed E on right thigh.....	Oct. 15, 1907	Oct. 30, 1907	Dec. 3, 1907	35.00	25.98
"	"	Mare, bay, white spot on forehead, about two or three years old, weight about 800 lbs., branded inverted U 5 on left thigh.....	Oct. 15, 1907	Oct. 30, 1907	Dec. 3, 1907	37.50	28.41
"	"	Gelding, bay, white face, four white feet, sweeney on both shoulders, branded single oarlock over reversed U on left shoulder, and lazy B over lazy 2 on left thigh.....	Oct. 10, 1907	Oct. 30, 1907	Dec. 3, 1907	20.00	10.55
"	"	Mare, bay, white spot on forehead, branded reversed E on right thigh.....	Oct. 15, 1907	Nov. 30, 1907	Dec. 30, 1907	36.00	22.85



## HERD DISTRICTS.

The Herd District Ordinance passed by the Territorial Legislative Assembly only provides for the formation of herd districts in that portion of the province formerly in the Territorial district of Saskatchewan, *i.e.*, the district north of the division line between townships 34 and 35 and as far west as the line dividing ranges 10 and 11. It is only in this district, therefore, that new districts can be organized, as no amendment has been made to this Ordinance since the province was inaugurated.

The following district has been constituted under the provisions of the Ordinance:

Range 1 townships 49, 50, 51, 52 and that portion of township 53 lying south of the North Saskatchewan River.

Range 2 townships 49, 50, 51, 52, 53 and that portion of township 54 lying south of the North Saskatchewan River.

Range 3 townships 51, 52, 53 and those portions of townships 54 and 55 lying south of the North Saskatchewan River, all west of the fourth meridian.

Range 4 township 51.

Poundkeepers: A. M. Tupper, Kitscoty, pound kept on the north-east quarter of section 14 township 51 range 3 west of the fourth meridian, and R. E. Brown, Kitscoty, pound kept on section 26 township 50 range 3 west of the fourth meridian.

Township 51 range 2 and township 51 range 4 were added to this district during the year.

Only one sale under the provisions of this Ordinance was made during the year:

SALE OF ANIMAL UNDER THE HERD DISTRICT ORDINANCE, 1907.

POUNDKEEPER	ADDRESS	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Pro-ceeds of Sale	Sent to Dept.
A. M. Tupper.....	Kitscofy.....	Heifer, red, white spot on forehead, white on belly, back of front legs, hind feet and end of tail, a few white hairs in ears, one year old, no visible brand.....	Sep. 2, 1907	Sept. 14, 1907	Oct. 12, 1907	\$10.25	.....



## STOCK INSPECTION.

With the development of new towns and new centres for shipping stock it was found necessary to appoint a number of additional stock inspectors at various points throughout the province. Early in the year Mr. Fleming resigned as stock inspector at Calgary and Mr. P. D. Sanders was appointed to succeed him. Assistance was again given the Western Stock Growers' Association in maintaining a competent inspector at Winnipeg to watch all shipments from Alberta for estray animals. This inspector was able to detect the wrongful shipping of a number of animals. For these animals he collected the market price which was forwarded to the secretary of the association together with the brand on the animal. The secretary forwarded the money to all parties who could be identified by the brand and balance was forwarded to the department.

The list of brands and general description of the brands on the animals together with the place and date of shipment were duly advertised in the official gazette. By this means quite a number of stockmen received pay for animals which would otherwise have been lost to them.

The chief stock inspector, Mr. C. J. Creswell, has been doing efficient work visiting the local inspectors and in seeing that the butchers throughout the province are keeping a record of the hides of the animals killed by them as required by law. The following is his report for the year:

## REPORT OF THE CHIEF STOCK INSPECTOR.

I have the honour to submit the following report for the last year on my work as chief stock inspector. I found that the butchers were not complying with the law and I have devoted the major portion of my time to looking after them and visiting local stock inspectors. The territory covered by me is too large for one man to handle and get around as often as he should, but with the assistance of the R.N.W.M.P. I have succeeded in getting the country south of Red Deer in very good shape. The police in Calgary, Macleod and Lethbridge districts have given me every assistance but north of Red Deer in the Fort Saskatchewan district I have been unable to interest them. I would suggest that as this matter properly belongs to the police it be taken up with the Commissioner and that it be turned over entirely to them, with perhaps a yearly or semi-yearly inspection by a qualified brand inspector.

It seems to me that the duty of a chief inspector should be to raise the efficiency of the local inspectors, and to do this he should have full reports on all strays caught in Winnipeg and by whom inspected. As the inspector in Winnipeg is partly paid by the province this could be arranged without trouble. As the matter now stands I have no means of knowing which inspectors are allowing strays to pass and which are doing their duty. If the chief stock inspector would obtain these reports he would then visit the delinquent inspectors and find out if they or their deputies were negligent. I think that in this way it is possible to raise the efficiency of the local force considerably.

I would also suggest that local inspectors be required to furnish the chief inspector with a copy of the certificate of all shipments. Being in a position to know tricky and dishonest shippers, he could then follow suspicious shipments to their destination and thus detect any dishonest practices. I would further suggest that a more workable method of disposing of stray cattle in Calgary be devised. Fortunately we have been able to find owners for all strays so far, but this matter may come up at any time and the inspector would be in somewhat of a quandary to know how to dispose of them. At present he has no power to sell them and if no owner is found can only proceed according to The Stray Animals Ordinance. To do this would saddle the cost of two months' feed and keep on the owner, which, with the expense of selling, would nearly equal the value of the animal, leaving nothing for him.

C. J. CRESWELL,  
Chief Stock Inspector.

The following is a tabular statement of the returns made by the various stock inspectors throughout the province of the stock shipped during the year:

SHIPPING POINTS	INSPECTORS	EXPORTS				LOCAL SHIPMENTS		TOTAL	
		EAST		WEST		CATTLE	HORSES	CATTLE	HORSES
		CATTLE	HORSES	CATTLE	HORSES				
Airdrie.....	D. Downie.....	42	....	108	....	..	1	150	1
Alix.....	Horace Hickling.....	335	....	132	....	274	23	741	23
Blackfalds.....	J. Capron.....	....	....	....	....	14	....	14	....
Brook's Station.....	E. M. Crooker.....	4,579	....	....	....	....	114	4,579	141
Calgary.....	P. D. Sanders.....	2,723	186	6,640	505	661	922	10,024	1,613
Cardston.....	Frank Austin.....	1,446	34	....	....	126	60	1,572	94
Carstairs.....	R. Scott.....	881	....	216	16	35	48	1,132	64
Cowley.....	C. B. Miller.....	1	2	79	68	982	126	1,062	196
Chipman.....	W. Hall.....	....	....	....	....	52	....	52	....
Didsbury.....	Horace Hickling.....	276	....	143	....	295	21	714	21
Edmonton.....	W. R. Howey.....	30	40	....	....	54	172	84	212
Erskine.....	J. E. Longacre.....	947	....	92	....	....	5	947	5
Fort Saskatchewan.....	G. T. Montgomery.....	....	....	....	....	24	32	24	32
Gleichen.....	W. B. Macleod.....	4,052	399	35	....	21	55	4,108	454
Grassy Lake.....	W. Salvage.....	318	....	....	....	....	....	318	....
High River and Cayley.....	James Kent.....	2,652	165	1,215	108	360	522	4,227	795
Hardisty.....	A. J. Dixie.....	....	25	....	....	1	182	1	207
Innisfail.....	W. T. Lundy.....	42	3	1,088	32	327	202	1,457	237
Irvine.....	C. Bemiss.....	429	132	40	1	10	1	479	134
Lacombe.....	J. R. Burdeck.....	989	31	704	31	667	423	2,360	485
Lethbridge.....	G. Fraser.....	1,709	1,502	55	114	170	472	1,934	2,088
Macleod.....	R. G. Matthews.....	2,020	41	167	31	484	414	871	486
Medicine Hat.....	J. H. G. Bray.....	38,160	2,076	21	35	257	687	38,438	2,798
Millet.....	W. A. Robertson.....	....	....	....	....	19	....	19	....
Morley.....	D. McDougall.....	....	....	....	....	2	86	2	86
Okotoks.....	John Paterson.....	95	44	139	25	77	231	311	300
Olds.....	Wm. Dean.....	417	....	364	15	175	68	956	83
Pincher Creek.....	Jas. Robertson.....	1,394	15	939	65	1,984	67	4,317	147
Ponoka.....	A. Reid.....	27	15	408	1	422	56	857	72
Red Deer.....	J. B. Gaetz.....	1,308	21	168	14	132	241	1,608	276
Stettler.....	A. W. McCullough.....	2,159	....	112	5	244	136	2,515	141
Strathmore.....	G. N. Lloyd.....	10,713	....	733	4	464	2	11,910	6
Strathcona.....	J. C. Wainwright.....	....	....	13	....	130	238	143	238
Tees.....	W. E. Tees.....	....	....	287	1	11	12	298	13
Vegreville.....	M. G. Connolly.....	509	9	26	6	579	12	1,114	27
Vermilion.....	M. Brimacombe.....	427	316	....	....	107	34	534	350
Walsh.....	Lachlan Sinclair.....	1,127	106	....	12	2	8	1,129	126
		79,807	5,162	13,924	1,089	9,162	5,673	102,893	11,924



## DESTRUCTION OF WOLVES.

Recognizing the seriousness of the ravages made by timber wolves upon the stock of the country the Territorial Government, as early as 1899, made provision for the payment of a bounty upon every one killed. Regulations were framed governing the method of payment, copy of which was given in the 1905 report. These regulations were adopted upon the inception of the province and bounty paid under them in the years 1905, 1906 and 1907. Owing, however, to the fact that these regulations provided for the payment of a bounty only through a live stock association, and that, the only association making such payments, being the Western Stock Growers' Association which operated largely in that portion of the province lying to the south of the main line of the Canadian Pacific Railway, the effect of this regulation was that bounty was paid in only a portion of the province. Since the inception of the province the department has received more or less complaint from ranchers, farmers, sheep breeders and poultry men as to the depredations committed by coyotes. After the disappearance of the rabbits during the winter of 1906-7 the coyotes became exceedingly bold in their attacks upon poultry, sheep and calves. Many complaints of severe losses were received. In the early part of February, 1907, a deputation from the Peace River country waited on the Government and requested that a bounty be placed on wolves in that portion of the province as a great number of stock was destroyed every year by them and they were gradually becoming more numerous. The Legislature, therefore, authorized the adoption by Order in Council of regulations for the payment of bounty on wolves and coyotes which would be applicable all over the province. In order that the bounty should be uniform and paid in a similar way it was decided to cancel, at the end of the year, the regulations under which the Western Stock Growers' Association had so long paid bounty on timber wolves. This has brought to an end a bounty which has been of great value to the stockmen of the southern portion of the province. The following is a statement of the number of wolves killed under these regulations:

YEAR	DOGS	BITCHES	PUPS	TOTAL
1899.....	75	43	336	454
1900.....	73	54	264	391
1901.....	68	68	238	374
1902.....	51	40	274	365
1903.....	19	22	289	330
1904.....	58	38	230	326
1905.....	33	21	170	224
1906.....	40	34	147	221
1907.....	24	18	122	164
Total.....	441	338	2,070	2,849

This shows a gradual decrease each year, and it is hoped that the same will be true with respect to the coyotes under present regulations.

## WOLF BOUNTY REGULATIONS.

The bounty is now payable under the following regulations:

1. For the purposes of these regulations the term—
  - (1) "Timber wolf" shall mean the large wolf known as the grey wolf;

(2) "Prairie wolf" shall mean the coyote or brush wolf;  
(3) "Wolf pup" shall mean the immature young of the prairie or timber wolf up to the first of August in any year.

2. (1) The bounty upon timber wolves shall be ten dollars per head;
- (2) The bounty upon prairie wolves shall be one dollar per head;
- (3) The bounty upon wolf pups shall be one dollar per head.

3. For the purpose of these rules and regulations the stock inspectors appointed under the provisions of The Stock Inspection Ordinance shall be wolf bounty inspectors in that part of the province lying to the south of the 55th parallel of latitude, and the Royal North-West Mounted Police shall be inspectors in that part of the province lying north of the 55th parallel of latitude:

Provided that additional inspectors may be appointed by the Minister of Agriculture from time to time as may be deemed advisable.

4. The pelt, including the scalp of each wolf upon which bounty is claimed, must be produced intact to the inspector by the person claiming the bounty. Every person applying for bounty shall furnish the inspector with an affidavit to the effect that the animal upon which bounty is claimed has been killed inside the province.

5. Upon the production to him of the pelt of any wolf the inspector shall split both ears from tip to base.

6. The inspector shall keep a record of all warrants issued, and number them consecutively in a book supplied by the department for the purpose, and forward to the department a counterfoil of every warrant issued.

7. The inspector shall use every precaution known to him and be satisfied that the pelt is of a timber wolf and not a prairie wolf before he issues a warrant for the same.

8. No bounty is to be paid under these regulations on any wolf killed prior to the first day of July, 1907.

9. A fee of ten cents shall be paid to the inspector for each pelt inspected, the same to be computed upon the warrants issued, and paid by the department out of the vote for the destruction of wolves.

10. Upon presentation to the department of any bounty warrant, payment is to be made for same out of any Legislative appropriation in that behalf.

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The direct supervision of the carrying out of the Wolf Bounty Regulations was placed in the hands of the chief game guardian, Mr. B. Lawton, and the following is his report thereon:

#### REPORT ON WOLF BOUNTY.

The amount paid for bounty on coyotes and timber wolves under the above regulations as shown by warrants received up to and including the 31st day of December was \$3,598.70. This, together with \$1,030.00 paid by the department on timber wolves through the Western Stock Growers' Association, makes in all a total of \$4,628.70 expended during the year 1907 for the destruction of wolves.

There were 102 inspectors appointed for the purpose of inspecting pelts and issuing warrants during 1907. This number is being gradually increased in order that the settlers may not have to travel too far to claim bounty. During the months of November and December the average amount claimed under bounty regulations was almost one hundred dollars per day.

The present regulations are not as stringent as they should be. The experience in other provinces and states where a bounty is paid on wolves has been that even the most drastic laws have failed to entirely eliminate dishonest practices. The State of Washington estimates that during the year 1906 over four thousand dollars were fraudulently obtained by parties claiming bounty. The State of Montana also had trouble in this respect. It is also stated that parties have claimed from the Province of Saskatchewan bounty on coyotes killed in this province. Attempts have also been made by residents of the province to collect bounty on the pelts of timber wolves killed elsewhere.

As the depredations of timber wolves and coyotes cause a loss to the settlers of this province amounting to many thousands of dollars annually a few remarks as to the best and most successful manner of capturing or destroying them will no doubt prove of interest.

The hunter and trapper prefers of course to take the pelts of these animals between the first day of November and the first day of March while the fur is at its best. The price realized on pelts taken during this time runs from one to two



dollars on coyotes and five to seven dollars for timber wolyes. The bounty of one dollar on coyotes and ten dollars on timber wolves, in addition to the value of the pelt as fur, will no doubt be an inducement for them to give the hunting of these animals more attention. The farmer and rancher of course desire their destruction not for the sake of the fur or bounty but to prevent damage to their stock and poultry. The most effective way of doing this is to destroy the pups. Any person who knows the country adjacent to their place of residence may readily locate their dens by studying the lay of the country.

For breeding dens they choose, if possible, natural cavities or washed out hollows on the southern slopes of rocky or bad land ridges. There is usually a high point not far from the den where the male is on guard during the day. Good tracking snow often lies on the ground during the early part of the breeding season, which renders the finding of the dens much easier; even on bare ground there is little trouble in locating these dens.

By riding along ridges until the tracks are found, the direction of the den can be often located by the lay of the land. Near the den the tracks become more perceptible and often gather into well worn trails.

Coyotes make their dens in the same kind of places as wolves, and also dig burrows or use old badger holes, slightly enlarged, and in order to reach them a shovel is often necessary. Farmers or ranchers should not allow wolf or coyote pups to grow up on or near their lands. A short time spent in trying to locate them will usually meet with success and it is up to everyone to try to protect himself by destroying them. The young pups of wolves and coyotes are nearly black, but as they grow older the colour fades to dull yellow, and when about three months old a new light grey coat is acquired.

#### *Trapping Wolves.*

For trapping these pests it is advisable to use a No. 4 double spring trap for wolves and a No. 3 for coyotes, with an extra stout chain and swivel. If in a timber wolf country it will be better to use the No. 4 trap as this will hold either and may prevent the loss of the trap. If possible attach the trap to a drag. If it is found necessary to stake the trap, it may be done by driving the stake just below the surface of the ground and adjusting it in such a manner that the chain will not slip off.

If possible the trap should be placed in such a position that it can be approached from one direction only. It should be near their runway and covered in such a manner that no portion of the trap or chain is visible. This may be done by covering the trap with a piece of paper, which in turn should be sprinkled with sufficient fine dirt to cover it, and by sprinkling with water, a natural appearance may be secured. Care should be taken to leave the ground in a condition as to appear as if it had not been disturbed.

Wearing old gloves well scented as well as rubbing the soles of the shoes with tainted meat will prevent suspicion due to any human scent being left behind. A piece of old sacking or a cow hide may be used to stand on or to pile the loose dirt on while burying the trap. Meat baits alone have not proven successful in capturing these suspicious and cunning animals. Of scents and combinations the fetid bait has proven most successful. This is prepared by putting a piece of raw meat in a wide-mouthed bottle or jar and placing it in a warm shady place. Allow it to stand until the odor therefrom has become almost unbearable, when a quart of lard oil and 1 oz. of tincture of musk may be added to each half pound of meat. Pour a little of this on the ground in such a position that the animal to be trapped cannot get to it without first crossing the trap. This bait is very attractive to domestic animals and care should be taken that they cannot gain access to it.

Poisoning is a very common, as well as successful, way of destroying these pests. Great care of course must always be taken that domestic animals do not have an opportunity of partaking of poisonous baits. Provided it is taken in proper quantity, pure sulphate of strychnine has proven to be the most effective poison for this purpose. For coyotes 2 grains and wolves 4 grains, has proven to be the most effective dose. It should be enclosed in capsules of 2 and 3 grain capacity respectively and every trace of the contents wiped from the outside. Each capsule should be inserted into a piece of beef suet about the size of a walnut. Never use lean meat as the juice therefrom will dissolve the capsule and free the poison before it is partaken of by the animal for which it is intended. The baits may be carried in a tin can or pail and dropped while riding along on horseback, care always being taken that the bare hand or the clothing does not come in contact with the bait. This may be prevented by wearing gloves which have been scented. After deciding as to where these baits shall be placed, the trail may be scented by dragging an old bone or piece of meat which has been previously scented. The baits may also be placed near a carcass or along a trail frequently travelled by the wolves.

Hunting with dogs has proven more successful with coyotes than with the timber wolf. The large greyhound or wolfhound which runs by sight and hunts in pairs will readily overtake and kill the coyote, but they would be no match for a full grown timber wolf. By watching at the den in the early morning or late evening during the breeding season, the hunter may secure one or both of the parents.

#### *Fencing.*

Fencing against wolves and coyotes has been adopted to some extent. Owing to the expense it is not feasible to enclose anything but areas such as would be suitable for swine, or small numbers of sheep and calves, or other animals which would not require a large range, or might be used for a night enclosure for any kind of stock. A fence for this purpose should be built as follows and would, I think, prove effective in keeping out almost all carnivora.

Woven wire stretched on posts set a rod apart, with a closely barbed wire just along the surface of the ground. The woven wire should be about 3 inches above this and 36 inches high, the mesh of which should not exceed five inches. Above this should be placed two more barbed wires, not more than six inches apart. In a district where the snowfall is at all heavy, still another barbed wire should be used, and placed five feet from the ground. To prevent sagging a vertical wire or dropper may be placed between each post. For poultry it will be necessary to place light-weight netting immediately above the heavy netting mentioned and to such a height as to prevent the possibility of the birds enclosed flying over it.

The following is a list of the inspectors, arranged according to electoral districts as shown by their post office addresses:

#### WOLF BOUNTY INSPECTORS BY CONSTITUENCIES.

##### *Athabasca.*

Biggs, William.....	Fort McKay.
Johnson, Colin.....	Wabiskaw.
Griffin, A. H.....	Wabiskaw.

##### *Banff.*

Elliott, W. B.....	Cochrane.
Grayson, Charles.....	Cochrane.
McDougall, D.....	Morley.
Sibbald, H. E.....	Exshaw.
Bell, Ernest.....	Lochand.

##### *Cardston.*

Austin Frank.....	Cardston.
Patton, Wm. T.....	Coutts.

##### *Calgary.*

Sanders, P. D.....	Calgary.
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##### *Edmonton.*

Pickering, W. H.....	Edmonton.
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##### *Gleichen.*

Downie, W. A. H.....	Airdrie.
Ball, Wimmian J.....	Brooks Station.
Urquhart, Wm.....	Crossfield.
Scott, Harry.....	Gleichen.
Vigar, F. C.....	Rosebud Creek.
Moorehouse, Oscar.....	Strathmore.

##### *High River.*

Kent, James.....	High River.
Shaw, H. M.....	Nanton.
Patterson, John.....	Okotoks.



*Innisfail.*

McDermott, P. ....	Bowden.
Lundy, W. T. ....	Innisfail.

*Lacombe.*

Brereton, T. A. ....	Valley City.
Mather, Alex. ....	Alix.
Capron, Joseph. ....	Blackfalds.
Damron, John. ....	Bentley.
Read, R. A. ....	Chigwell.
Tait, W. H. ....	Content.
Cull, F. A. ....	Canyon.
Longacre, J. E. ....	Erskine.
Kent, James P. ....	Lacombe.
Huston, W. C. ....	Morningside.
Prudden, W. E. ....	Red Willow
McCullough, A. W. ....	Stettler.
Tees, William F. ....	Tees.

*Leduc.*

Johnson, J. S. ....	Leduc.
Robertson, Wm. A. ....	Millet.

*Lethbridge.*

Salvage, Wm. ....	Grassy Lake.
Lowther, C. W. ....	Lethbridge.
O'Brien, T. J. ....	Raymond.
Ostlund, H. ....	Stirling.

*Macleod.*

Riske, J. ....	Claresholm.
Mathews, R. G. ....	Macleod.

*Medicine Hat.*

Beny, Carl. ....	Irvine.
Bray, J. H. G. ....	Medicine Hat.
Davis, G. E. ....	Talbot.
Sinclair, Lachlan. ....	Walsh.

*Ponoka.*

Hally, Andrew. ....	Ferry Point.
Johnston, J. D. ....	Highland Park.
Reid, A. ....	Ponoka.
Bosmans, E. ....	Round Hill.
Thorpe, Herbert. ....	Rimbey.
McKenzie, Foster. ....	Sedgewick.
Bryenton, F. W. B. ....	Spring Lake.

*Pincher Creek.*

Miller, C. B. ....	Cowley.
Robertson, James. ....	Pincher Creek.

*Rosebud.*

Scott, Robert. ....	Carstairs.
Dean, William. ....	Olds.
Liesemer, T. E. ....	Didsbury.

*Red Deer.*

Gaetz, J. B. ....	Red Deer.
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*Strathcona.*

Horton, H. ....	Clover Bar.
Wainwright, J. O. ....	Strathcona.

*Sturgeon.*

Menard, Louis.....	Athabasca Landing.
LeGoff, L.....	Lac La Biche.
Erasmus, Peter.....	White Fish Lake.

*Stony Plain.*

Gunn, Peter.....	Lac Ste. Anne.
Imeson, George.....	Stony Plain.
Eccles, S. J.....	Spruce Grove.
Dunn, C. H.....	Wabamun.

*St. Albert.*

Gaudette, P. S.....	Morinville.
MacDonald, Gordon.....	Belvedere.

*Victoria.*

Torrie, R. J.....	Lamont.
Carey, E.....	Andrew.
Brosseau, E.....	Brosseau.
Montgomery, G. T.....	Fort Saskatchewan.
Mitchell, John A.....	Pakan.

*Vermilion.*

Moody, A. R.....	Beaver Lake.
Watson, Andrew.....	Chipman.
Thirsk, Leon.....	Equity.
Gilpin, B. C.....	Gilpin.
Dixie, A. J.....	Hardisty.
Smith, N. M.....	Holden.
McColman, D.....	Innisfree.
Moore, D. H.....	Islay.
Johnston, A.....	Kitscoty.
Pass, Fred.....	Lavoy.
Miller, Horam.....	Lloydminster.
Thomas, J. B.....	Mannville.
McAlpine, D. A.....	Mundare.
Thompson, T. W.....	Ranfurly.
Brereton, A. W.....	Ribstone.
Dawson, J. H.....	Denwood.
MacKenzie, R. A.....	Tofield.
Connelly, M. G.....	Vegreville.
Brimacombe, M. G.....	Vermilion.
Lund, Otto O.....	Viking.

*Wetaskiwin.*

Eggen, K. O.....	Bawlf.
Duggan, W. F.....	Camrose.
Davidson, D.....	Daysland.
Olstad, O.....	Rosenroll.
Miquelon, P. A.....	Wetaskiwin.

BEN. LAWTON,  
In charge of Wolf Bounty Payments.



## II.—THE BEEF COMMISSION.

As intimated in the annual report for 1906, preliminary steps had been taken working towards the creation of a commission by the four western provinces to enquire into the conditions surrounding the meat industry.

A commissioner representing each province was appointed and a preliminary meeting held at Calgary, November 2nd, 3rd and 4th, 1906. After this meeting the Provinces of Saskatchewan and British Columbia withdrew. Negotiations were then begun with Manitoba, with the result that a joint commission was appointed. A preliminary meeting was held at Medicine Hat on May 13th, 1907, at which sittings were arranged for at the following places:

Medicine Hat.....	June 10th and 11th.
Lethbridge.....	" 12th and 13th.
Cardston.....	" 14th and 15th.
Macleod.....	" 18th and 19th.
High River.....	" 20th and 21st.
Calgary.....	" 22nd, 24th, 25th and 29th.
Gleichen.....	" 27th and 28th.
Innisfail.....	July 2nd and 3rd.
Red Deer.....	" 4th and 5th.
Lacombe.....	" 8th and 9th.
Erskine.....	" 11th and 12th.
Stettler.....	" 11th.
Wetaskiwin.....	" 6th.
Edmonton.....	" 15th, 16th and 22nd.
Vegreville.....	" 17th and 18th.
Vermilion.....	" 19th and 20th.

The commissioners chose Mr. H. A. Craig, Superintendent of Fairs and Institutes for the province, as their secretary, while P. J. Nolan, K.C., of Calgary, was engaged as counsel, and K. J. Collings as official reporter. The following is the text of the commission and the report of the commissioners:

CANADA  
PROVINCE OF ALBERTA. }

GEO. H. V. BULYEA,  
*Lieutenant Governor.*

### COMMISSION.

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India.

To all to whom these presents shall come or whom the same may in any wise concern, Greeting:

Whereas in and by an Order of our Lieutenant Governor in Council bearing date the ninth day of May in the year of our Lord one thousand nine hundred and seven, provision has been made for an investigation by our commissioners therein and hereinafter named with respect to certain matters relating to or affecting the industry or trade of purchasing and selling cattle, sheep, hogs and meats and the conditions affecting or regulating the price thereof in the Province of Alberta and elsewhere, as upon reference to the said Order in Council, a copy of which is hereto annexed, will more fully and at large appear.

Now know ye that by and with the advice of Our Lieutenant Governor in Council, we do by these presents nominate, constitute and appoint Alexander Middleton, of the City of Medicine Hat, in the Province of Alberta, and Alexander M. Campbell, of Argyle, in the Province of Manitoba, to be our commissioners to conduct such enquiry.

To have, hold, exercise and enjoy the said office, place and trust unto the said Alexander Middleton and Alexander M. Campbell, together with the rights, powers, privileges and emoluments unto the said office, place and trust of right and by law appertaining during pleasure.

And we do hereby under the authority of the Ordinance respecting Enquiries Concerning Public Matters, being Chapter Twelve of the Consolidated Ordinances of the North-west Territories, confer upon our said commissioners the power of summoning before them any witnesses and of requiring them to give evidence on oath, orally or in writing or on solemn affirmation, if they are persons entitled to affirm in civil matters, and to produce such documents and things as our said commissioners shall deem requisite to the full investigation of the matters into which they are hereby appointed to examine.

And we do hereby require and direct our said commissioners to report to our Lieutenant Governor in Council the result of their investigation, together with the evidence taken before them and any opinion they may see fit to express thereon.

In testimony thereof we have caused these our letters to be made patent and the Great Seal of our Province to be hereunto affixed.

Witness: The Honourable George Hedley Vicars Bulyea, Lieutenant Governor of our said Province at our Government House in our City of Edmonton, this Ninth day of May in the year of our Lord one thousand nine hundred and seven and in the seventh year of Our Reign.

By Command,

HAROLD W. RILEY,

*Deputy Provincial Secretary.*

#### REPORT OF BEEF COMMISSION.

To His Honour the Lieutenant Governor in Council for the Province of Alberta:

The commissioners appointed under the terms of the commission dated the ninth day of May in the year of our Lord, one thousand nine hundred and seven, issued under the provisions of an Ordinance respecting Enquiries Concerning Public Matters, being Chapter 12 of the Consolidated Ordinances of the North-West Territories, and the Order in Council thereunto annexed to investigate and report to the Lieutenant Governor in Council upon and with regard to all matters having to do with the purchase and sale, whether by wholesale or retail, of cattle, sheep, hogs and meats in the province, and of and unto the conditions prevailing in the industry or trade of purchasing and selling cattle, sheep, hogs and meats and the conditions affecting or regulating the price thereof, whether by wholesale or retail, and of and into all facts or conditions tending to the ascertainment of whether there exists or has existed or is likely to exist any combination in restraint of or affecting trade in cattle, sheep, hogs and meats or any or all of them in the province or elsewhere, such as would infringe upon the provisions of the Criminal Code of Canada, 1892, and amendments thereto, or is otherwise injurious or inimical to the people of the province or any portion thereof; have the honour to submit their report embodying the results of their enquiry, their recommendations in connection with the various matters into which they were directed to enquire, together with the evidence taken before them.

Subsequent to the appointment of your commissioners, Alex. Middleton, of Coleridge, in the Province of Alberta, and Alex. M. Campbell, of Argyle, in the Province of Manitoba, a preliminary meeting was held at Medicine Hat on May 13th, 1907, for the purpose of organization, and also for the consideration of certain problems pertinent to the investigation. H. A. Craig, of the Department of Agriculture, was appointed secretary to the commission, and P. J. Nolan, of Calgary, was appointed counsel for the conduct of the enquiry.

The following towns were recommended as places for sittings: Medicine Hat, Lethbridge, Cardston, Macleod, High River, Calgary, Gleichen, Innisfail, Red Deer, Wetaskiwin, Lacombe, Erskine, Edmonton, Vegreville and Vermilion.

After due notice had been given the sittings commenced at Medicine Hat on June 10th, 1907, and continued in the order mentioned above until July 22nd.

In the selection of men to appear as witnesses, the object was to secure representatives of those engaged in the different branches of the industry, namely, the producer, dealer (including buyers, commission men and exporters) shipper, transportation company and consumer. In all two hundred and ten witnesses were heard.

We have made an exhaustive investigation of the meat industry in Alberta, and we find that there is a universal complaint that it is not on a paying basis. There is a general feeling of dissatisfaction, partially due to the fact that there has been such a heavy mortality on large ranges during the past winter, also because the free range is being curtailed and primarily because the rancher and producer are not receiving sufficient remuneration for their labour and investment. The object of this commission, then, should be to determine exactly wherein the troubles lie, and to suggest remedies for the same, and discover if possible how the producer can obtain a better price for his product.



The report will deal with three branches of the trade, namely, beef, mutton and pork, the former occupying perhaps the most important place.

*Mutton Trade.*

We find that the sheep industry in this province is on the decline.

There has been a great controversy between sheepmen and cattlemen in the range country practically since sheep raising began. The cattle ranchers maintained that their cattle will not pasture on ground overrun by sheep. Some years ago the sheep limits were much larger than at present. About 1901 a commissioner in the person of E. W. Burley was appointed to investigate the controversy between the cattle and sheep men. Mr. Burley before completing his duties joined the Territorial Government, and Mr. Stewart was appointed in his place. We understand that Mr. Stewart made a very thorough investigation, and that he recommended that the sheep limits be changed. His recommendations were acted upon and the result is that the greater portion of the new sheep limits are located in the Province of Saskatchewan. Sheep ranchers complain that there is not sufficient water on their limits. This, together with the curtailing of the range, the heavy mortality during late winters and the ravages of the coyote, is responsible, we believe, for the decline of the industry.

Those who still remain in the business maintain that under good management it is a profitable industry. In view of the fact that there is a large amount of mutton brought into the country from Ontario, Australia and the Maritime provinces, and in view of the further fact that there is no legitimate reason why a sufficient quantity of this product should not be raised in this province to meet the demands of home consumption, we, your commissioners, believe that this government should take active steps to assist in the expansion of the industry.

We do not believe that it would be wise to have an extension of the sheep limits in the south, as what was but a few years ago a ranching country is now changing into a country of smaller holdings, consequently we believe that the range side of both the sheep and cattle business will soon be crowded out. We are of the opinion, however, that some improvement might be made in the range industry as it exists. Range lambs when placed upon the market are usually very thin and small. If the sheep men would finish their lambs by feeding they would not only increase the total weight, but would secure an earlier maturing animal and would also produce an improved quality of meat. Most of the range sheep in this province are to be found south of Calgary, and in this particular district the alfalfa crop is being developed and is now being grown in paying quantities. It is a conceded fact that alfalfa is one of the best feeds for finishing lambs. It has been demonstrated also that roots and rape can be raised in paying quantities in the southern country. These feeds, together with a grain mixture, would make a very satisfactory ration for the finishing of our range lambs. Therefore, we would recommend that the government undertake sheep feeding experiments in connection with the feeding experiment stations mentioned in our treatise of the cattle industry.

In this connection we would quote from the evidence of J. McCaig:

"Lamb and sheep feeding experiments running over ninety days, including December, January and February, should be undertaken as soon as the balance of food necessary is available. This is in line educationally and economically with the needs of our agricultural and pastoral interests. The ranchers themselves are approaching it, but too slowly. Our sheep are being bought to put into feeding experiments outside of the province, namely, at Moose Jaw and Port Arthur, or they were a year ago. This should be counteracted."

Since the range enterprises are being reduced the sheep business must be maintained by the introduction of farm flocks throughout the northern part of the province. In this connection Mr. Hamilton, manager of the Alberta Sheep Co., Limited, states:

"It would be profitable to have the industry extended. Of course the men in the north country are trying to get more sheep. The farmers in the north are coming down here and will buy one hundred or two hundred sheep for breeding purposes, and for selling afterwards to supply the local demand up there. The difficulty now is to get sheep to buy. There are not enough sheep here in the country to supply the demand and that has had something to do with the increased price."

The difficulty of establishing the industry in the northern portion arises from two causes: The ravages of the wolves and coyotes, and the cost of fences. The bounty system lately inaugurated by the government will in a measure do away with the former. We believe, however, if sheep are to be kept profitably in the north they must be held within a woven fence. We are led to believe that many of the farmers in various parts of the northern country are anxious to enter the sheep business. Believing, then, that there is urgent necessity for encouragement we would respectfully recommend that the government of the province bring in an importation of sheep, and distribute them in small lots throughout the province.

As our climate is somewhat severe the close woolled breeds will be more profitable to raise and of these we would mention the Shropshire and Oxford particularly. These two breeds may be secured from Ontario flocks at the present time at very reasonable prices.

#### *Pork.*

We found an absolute dissatisfaction amongst the producers of pork, due to a lack of confidence in the market. There have been times when the prices have been high, sufficiently so to encourage farmers engaging extensively in the industry, and when a large number of hogs came on the market, the price dropped to a figure below the cost of production. This condition of affairs has been repeated several times in the past decade so that at the present time the farmers, while anxious to engage in the business, will not venture because of the uncertainty of the market.

We can see no reason why this should be the history of the industry. The small buyers of pork maintain that Burns & Co. set the price. The producers unanimously claim that this company is responsible for the state of the industry. We know that Burns & Co. handle a great deal of the pork of the province and have done so for many years. We believe also that the fact of their doing business so extensively in the province has tended to keep other buyers from entering. From the evidence we are forced to believe that there is a monopoly in the industry, and that the privilege has been abused. Instead of fostering the industry at all times and looking for a foreign outlet when the market was glutted they have allowed the cost to drop below the price of production, and have driven a large number of farmers out of the business. The result is that to-day people say that the present prices are profitable but they have had a dear lesson, and they will not venture again if this company can dictate the price.

We believe that this is a matter which should engage the immediate attention of the government. Thousands of tons of cured meat are being imported from the United States yearly and sold at ridiculously high prices. The money is going out of the country, when it should and may be kept there. We wish also to state that the imported goods have secured a name far beyond their due. They are popular largely because they are imported and again because they have been extensively advertised. This imported bacon comes from the corn states, where they raise nothing but the fat type of hog and feed it nothing but corn. It does not stand to reason that the meat would make as high a class of bacon as that of our oat and barley fed hog.

We wish to say that this government would be justified in taking active steps in the endeavour to place the hog industry on a firm basis. We would respectfully recommend that the government consider the advisability of assisting in the erection of at least one pork packing plant to be located in the district between Calgary and Edmonton. If it be found later that its operation is successful, we would recommend that the government assist in the erection and operation of a plant in the southern part of the province. In several parts of the district between Calgary and Edmonton we were informed that the farmers were prepared to subscribe sufficient shares to erect the plant, but they wanted the government to assist not only financially but also to take over the entire management of the concern. This latter they believed the government only could handle successfully and cope with the large corporations which would be too ready to injure any such institution. We would respectfully recommend the evidence of Jas. Bower, of Red Deer, for your consideration, as that of a man who has given a great deal of sound thought to the situation and the views of whom are representative of ninety per cent. of those interested in the pork industry of this province.

The fact that a large pork packing plant is in the course of erection near Edmonton under the management of the J. Y. Griffin Co. does not seem to inspire confidence in those who wish to engage in the industry, but rather the opposite. Whether the operation of another pork packing plant will help the industry we are not prepared to say, but we wish to impress upon the government the necessity for immediate action on their part in some such manner as recommended above.

#### *Beef Trade—(a) Local Trade.*

In the neighbourhood of 50 per cent. of the yearly beef crop of Alberta is used within the Dominion, the other 50 per cent. being export. A universal complaint is that we cannot get rid of our butchers' stock. The animals exported are those that weigh from 1,200 pounds upwards, smooth, well finished cattle. The remainder or butchers' stuff, is comprised of the light weights and those which are tough and unfinished. The objection to shipping the light weights to the old country is that it costs as much to ship a steer of 1,000 pounds as one of 1,600; in other words, the ship space purchased at a certain amount per head, and not according to weight. Fifty per cent. of the yearly meat crop of Alberta is sufficient to glut the domestic market, therefore to reduce the supply of domestic meat would ameliorate this



condition of affairs. Many of the cattle which are sold for butchers if kept until finished would be exported and thus reduce the amount of this class. This, we believe, is an important factor in the solving of this phase of the local beef trade of the province.

Again the country is in a transitional stage, a stage when ranching is changing to mixed farming, and in order to practise mixed farming successfully a proper system of winter seeding must be adopted. When the rancher was asked why he did not feed his stock in winter for spring delivery the invariable answer was: "It won't pay."

We find that the average stockman is very reluctant in changing to this new method, perhaps because it involves work and permits restriction on the free life of the rancher.

Again those who have experimented have not obtained the most satisfactory results, a matter which has tended to discourage the business very materially. Many of the unsuccessful experiments, however, may be traced to the close housing of these range-raised cattle. We are strongly of the opinion that such work will result successfully if judiciously carried out. We would not advise close housing of these cattle but rather have open sheds convenient to a good pasture where they can be fed and get shelter and gradually be brought into a quiet and docile condition, the latter being very necessary for successful shipping. When cattle are taken off the range and immediately placed in the cars for shipping we find that they abuse themselves very badly, not only bruising themselves and rendering the meat in a very deteriorated condition, but in many cases these wild animals will not feed or drink for several days after being loaded, consequently fail a great deal if they are long in reaching the market.

Besides relieving the local market and producing a better class of cattle for the foreign market, this system would enable us to distribute the shipments throughout the year and would avoid glutting the market in the autumn with an inferior class of cattle. Furthermore, the system would not only increase the total weight of beef, but would also result in a greatly improved quality.

Another admirable feature which will result because of the inauguration of the system will be the lack of strain on the car service department in the autumn of the year, when it is taxed to its utmost on account of the season's crop being shipped.

After listening to the evidence of exporters who strongly impressed us with the necessity for a better bred and better fed animal for profitable exporting, we are convinced that it would be advisable for the government to adopt means of encouraging the finishing of these cattle.

We would respectfully recommend that the government establish three cattle feeding experiment stations distributing them properly throughout the province, and conduct such experiments as will demonstrate the feasibility of the cattle feeding business, demonstrate that these wild steers can be finished on hay and grain feed. In order to have such a scheme as practical as possible, we would recommend that these experimental stations be conducted along with an energetic system of grain growing for feed, so that they could be operated at a profit and demonstrate the practicability of the scheme in every detail. A great deal can be done by means of institute teaching, and we would advise that every opportunity be used to impress upon the farmers the necessity for feeding and also the proper method of doing the same.

By this scheme the government will be enabled to demonstrate in a practical way that the first and prime consideration in profitable feeding is to select the proper type of animal. We would emphasize again that one of the reasons why the cattle business has not been more profitable in the past is due to the fact that the majority of ranchers have been breeding a poor class of animal.

#### *Canning Plant.*

Almost every cattle raiser in the province has more or less stock which must be sold or used as canners—the very rough and thin animals and those which have served their day in the dairy herd.

Great difficulty is experienced in getting rid of this class. Although the matter was not presented to us by very many of the witnesses, yet, in view of the fact that these witnesses are prominent men in the districts in which they live, and in view of the further fact that the question as laid before us partook of such a definite character, we feel that we cannot ignore it.

We believe that the witnesses heard have a grievance in that they cannot dispose of their poorer class of stock to good advantage, and we believe also that if their wish were carried out by the government there would be a great improvement in the condition of affairs, yet, in view of the fact that there is now in the course of erection a large canning factory in the northern part of the province located within a few miles of Edmonton, and another canning factory in the course of erection in the southern part of the province, located at Medicine Hat, institutions

which we believe will materially change the condition of affairs with respect to the canning industry, we, your commissioners, do not deem it wise to recommend that the government take any active steps in the matter until there are further developments and until the plants now in course of erection are in operation and the results therefrom determined. If, in the event of unsatisfactory results emanating from the operation of these two canning factories, the government find upon further investigation that matters are still in an unsatisfactory condition, we believe that the government would then be wise in erecting and operating a canning plant.

*Retail Butchers' Trade.*

With regard to the retail meat industry, we beg to say that we examined about 35 butchers throughout the province, and the following are representative of the accounts laid before us:

Excerpt from evidence of Mr. W. J. Williamson, Edmonton:

"Q.—What do your steers usually dress?

"A.—About 700 lbs., some more, some less.

"Q.—(Pointing to diagram) Supposing that represents a 600 lb. steer dressed, could you tell us how many pounds of each different kind of beef there would be: say on one side of the animal to begin with? How many pounds of neck, for instance?

"A.—Neck, 25 lbs. at 6½c. per lb.  
Shoulder, 65 lbs. at 8c. per lb.  
Prime of rib, 40 lbs. at 11c. per lb.  
Plate, 15 lbs. at 8c. per lb.  
Brisket, 7 lbs. at 5c. per lb.  
Shank, 10 lbs. at 25c. for shank.  
Front quarter, 162 lbs., which realizes \$13.02½.  
Loin, 50 lbs. at 12½c. per lb.  
Flank, 10 lbs. at 5c. per lb.  
Rump, 25 lbs. at 10c. per lb.  
Round, 42 lbs. at 12½c. per lb.  
Hind shank, 18 lbs. at 45c. for shank.

"That makes a total, one side, of 317 lbs., for which you receive \$27.97½, or on the whole animal 634 lbs., which brings you \$55.95½.

"Q.—Don't you sell any of that meat at more than 12c. pre lb.?

"A.—Not on an average. A good deal of meat is sold to hotels.

"Q.—What do you get 18c per lb. for then?

"A.—Those cuts sold to small customers, principally the undercut and sirloin steak. The prices I have quoted are those at which meat is supplied to hotels and restaurants, where so much trimming is not required. Taking into consideration the cost of collecting accounts, these high prices would not average as much as the smaller prices, when large quantities of meat are sold.

"Q.—What would you pay for that steer that would dress 634 pounds?

"A.—I would pay 8c. per lb. at the present time.

"Q.—That would be \$50.70?

"A.—Yes, about that.

"Q.—What have you paid for any steers that you have bought live weight?

"A.—One cost me \$40.00 and the other \$35.00. The last I bought was \$40.00.

"Q.—That \$40.00 animal would have dressed how much?

"A.—About 550 lbs.

"Q.—And out of that \$40 animal you would have the hide. How much is that worth?

"A.—6c. a lb.

"Q.—How much would the hide weigh?

"A.—About 65 lbs.

"Q.—Well, that would be \$3.90 for the hide. And what about the offal?

"A.—The man who kills the animal gets the offal.

"Q.—What do you get for the tongue, liver and heart? What do you sell these for?

"A.—Tongues 45c., hearts 25c., tails 10c.

"Q.—We will say \$1.00 altogether. That would be \$4.90 for the hide and offal, which we will deduct from the price of the steer, which leaves \$35.10. That would be the net cost of that steer to you, would it not?

"A.—No. It would not. It would take us half a day to buy that steer with a man and team.

"Q.—That animal would cost you \$35.10, and at the prices you have given it would realize \$55.95, which would leave a gross profit of \$20.85."

Excerpt from evidence of Mr. Wm. Lee, manager for P. Burns & Co., Macleod:

"Q.—Now take a \$30.00 steer, what would that dress on the block?

"A.—He would probably dress about 650 or 700 lbs.

"Q.—What percentage of the gross weight?



- "A.—Well, I could not tell you.
- "Q.—I mean a good fat steer, would he dress 60 per cent.?
- "A.—No. I do not think he would; about 50 per cent. or 55.
- "Q.—What do you consider the proper charge for dressing and slaughtering that animal, so as to make it ready for the customers?
- "A.—In the killing of it?
- "Q.—Yes.
- "A.—That is for the slaughter men.
- "Q.—From the foot to the block, what do you consider it costs to get an animal on the block ready for the customer?
- "A.—Well, I have never figured that out.
- "Q.—It is not a big item, though, is it?
- "A.—No. It is not high.
- "Q.—You get the hide, don't you?
- "A.—Yes, sir.
- "Q.—What is that worth?
- "A.—The hide, if it is taken off properly, is worth about \$5.50.
- "Q.—What is the offal worth?
- "A.—We throw it away.
- "Q.—What is the tongue worth?
- "A.—About 50c.
- "Q.—Then the offal would be worth about \$1.00 would it not?
- "A.—I suppose that would be about it.
- "Q.—So that you get \$6.51 by way of rebate for hide and offal, so that if a steer cost you \$40, \$33.50 would be the actual cost to you? Now that we have got it on the block we take it that the animal dressed 650 lbs. How many lbs. of neck would there be in one side of the carcass?
- "A.—Neck, 15 lbs. at 4c. per lb.  
 Shoulder, 50 lbs. at 10c. per lb.  
 Prime of rib, 50 lbs. at 12½c. per lb.  
 Brisket, 40 lbs. at 7c. per lb.  
 Shank, 10 lbs. at 2½c. per lb.  
 Porterhouse, 35 lbs. at 15c. per lb.  
 Sirloin, 30 lbs. at 15c. per lb.  
 Rump, 35 lbs. at 12½ cts. per lb.  
 Round, 40 lbs. at 12½c. per lb.  
 Hind shank, 20 lbs. at 12½c. per lb."

According to the account submitted by Mr. Lee, the profit on a \$40 investment amounts to \$35.50, or 88.87 per cent.

Excerpt from evidence of Mr. F. Michener, Red Deer:

"Q.—You say that a 1,100 lb. steer would dress about 600 lbs. I want you to take half of that carcass, 300 lbs., and give me the different weights of it and the prices that you would retail the parts at. How many pounds would there be in the neck?

- "A.—Neck, 16 lbs. at 6c. per lb.  
 Shoulder, 45 lbs. at 9c. per lb.  
 Prime of rib, 20 lbs. at 12c. per lb.  
 Porterhouse, 20 lbs. at 15½c. per lb.  
 Rump, 20 lbs. at 9c. per lb.  
 Round, 40 lbs. at 12½c. per lb.  
 Shank, 20 lbs. at 50c. for shank.  
 Flank, 15 lbs. at 5c. per lb.  
 Brisket and plate, 30 lbs. at 5½c. per lb.  
 Front shank, 15 lbs. at 25c. for shank.
- "Q.—What would you sell it for by the carcass, selling the whole thing dressed?
- "A.—About 7½c. per lb.
- "Q.—What would you get for the hide?
- "A.—6c. a lb. It would probably be worth \$3.50.
- "Q.—The heart, liver and tongue, how much would they be worth?
- "A.—\$1.00.

"Q.—That would be \$4.50 for the hide and offal, and according to these figures you would make \$22.20 on a carcass, and out of that you would have to pay rent, interest on capital, insurance and all that kind of thing?

"A.—Yes."

Although we examined very carefully into the retail butcher's trade we found it almost impossible to arrive at a conclusion as to the average profit per carcass made by the retail butcher in Alberta. The foregoing system was used in examining each of the butchers who appeared before the commission. In certain cases the gross profits per carcass may be estimated at 100 per cent.; in other cases the profit drops to 10 per cent. or even less. Our efforts were futile in endeavouring to strike an average on the retail butchers' yearly profits.

Your commissioners are convinced that when there is a considerable turnover of stock and good business methods employed, the profits are large. In small establishments the danger of loss is much greater, and we also observe that the business methods employed here are responsible for the small profits in their business.

We are of the opinion that if the credit system were done away with and sales made strictly for cash the butchers of the province could afford to sell their meat at a considerably lower price. The man who pays has to pay for the man who doesn't. Again, butchers complain that it is difficult to get rid of the poorer cuts. The purchaser goes to the shop, and because he does not have to pay for his meat that day he is going to have the best that is going, whereas, if he had to pay cash he would suit the price of his purchase to his pocket. Then the butcher would have no bad debts, and he would get rid of all his poorer cuts.

There is no doubt that poor business methods and lack of economy, etc., are responsible for the small profits in the business. Furthermore, we may say here that there is considerable waste in competition because of the fact that each butcher has to do his own buying, slaughtering, hauling, etc. If it were possible to have this done by one firm in each town it would be a considerable saving of expense.

We also wish to mention that there is a reason for such great difference between the price per lb. paid for the animal on foot and the price charged in the shop. In the first place, the ordinary range animal will only dress about 55 per cent. of its live weight, which means that the price paid on foot must be almost doubled in the shop in order to realize cost price. A large portion of the meat must be retailed at about the same price as choice cuts. Thus the high price of porterhouse, sirloin, etc.

It has been complained that P. Burns & Co. have a monopoly of the retail meat trade of the province. It is not necessary for us to prove from the assertions of a number of witnesses that a monopoly exists. We need only refer to the evidence of Mr. Burns himself, in which he states:

"There are a lot of people in this country who think it is the right thing to knock the C.P.R., Gordon & Ironsides, and Burns, but I want to say that we three have made this country, and it is a pity that there are not more Burns and Ironsides in this country. Why, if I were to close down to-morrow, in ten days the people in this country would be starving.

"Q.—Do you not think, Mr. Burns, that there would be somebody found to take your place if you went out of business?

"A.—Not much. They could not do it. This business of mine has taken years to build up."

We would emphasize that the monopolistic state of the retail meat trade is a very undesirable condition of affairs for this province. It has been charged against P. Burns & Co. that they use doubtful methods in order to establish trade in certain towns. With respect to this, we have to say that there is no direct proof in the evidence that this is true.

A great deal has been said against P. Burns & Co. in their relation to the retail meat trade of the province. Viewing the evidence as a whole, your commissioners are impressed with the fact that many of the accusations against Mr. Burns and his company cannot be substantiated under oath.

#### *Slaughter Houses.*

Your commissioners have taken occasion to visit several slaughter houses situated in both provinces. We wish to say, on the whole, that matters are conducted in quite a cleanly manner. We desire to draw the attention of the government particularly to the cruel treatment to which the animals are subjected while being stunned. The animals are run into cages, holding one to each cage, and after the doors are properly secured, a man with an instrument resembling an axe, except that it is pointed where the axe is blunt, walks on a beam above the animals and administers the fatal blow. In this operation the treatment which many an animal receives before losing its senses is simply appalling. If the animals be struck in the proper place one light blow is sufficient to relieve it from all further pain, but we were present when it took as many as seven and eight blows on different portions of the head to bring the animal off its feet. After this a chain was attached to the hind feet of the animal, and when it had been strung to the ceiling the final blow was administered by a man slightly more expert at his business. Such treatment as this can be attributed to no other source than to carelessness on the part of the employers who have the work in hand. We have given a description of what happened in the case of one animal, but hundreds of innocent beasts which go to our slaughter houses are doomed to a similar fate. We ask the consideration of the government, firstly: from a humane standpoint; we believe that such things should not be allowed to take place in any civilized country; we would respectfully recommend that legislation be passed which will protect dumb creatures from unnecessary cruelty; we would suggest that it be compulsory for all animals to be



shot in the forehead. Secondly, we have been led to believe from conversation with men of experience that the meat of animals subjected to such brutal treatment in the killing is of a very inferior quality.

#### *Export Trade.*

We have heard the evidence of most of the large cattle raisers in the province, many of whom we have found to be very familiar with exporting conditions, and with the exception of one or two who are favourably situated their evidence goes to show that there is something seriously wrong. Almost without exception the small shipper has exported at a loss. It would appear that the transportation companies, commission merchants and all corporations interested in shipping endeavour to discourage the small shipper, or, in other words, that those who have shipped privately to Winnipeg, Montreal and the old country have been designedly held up from the point of shipment until their cattle were on the hooks in the market.

We were able to trace the steer from the Alberta range until he arrived in Winnipeg stock yards and acquaint ourselves thoroughly with every detail in the process up to this point, but we are firmly convinced that most of the trouble experienced by the private shipper is to be located beyond this point.

We can quite easily understand that it is to the interest of the transportation company to have the shipments consolidated and have the shipping done by as few men as possible. Again, it is to the interests of the commission men and the exporter to discourage private shipments, as it will increase their own business. The tendency of the industry is toward monopoly since the capital involved and the ability necessary in the carrying on of such a business naturally throws it into the hands of a favoured few. The transportation company should then be the agents to combat this influence, instead of to augment it.

One significant feature of the evidence relative to the C.P.R. is that the complaints come absolutely from the smaller shippers. Men such as Gordon & Ironsides, P. Burns & Co., the Knight Sugar Co., George Lane and a few others have no complaint to lodge against the C.P.R., while smaller private shippers are loud in their denunciation, claiming that the most adverse treatment is meted out to them and every possible favour shown the large shippers.

#### *Delays in Transit.*

In many instances we consider that the time occupied in shipping cattle from Alberta to Winnipeg and Montreal, and the treatment the rancher receives at the hands of the C.P.R., must be expressed in no milder terms than outrageous. The delays in transit occasioned by neglect on the part of the C.P.R. officials is a matter which benefits no one, and in many cases brings ruin and disaster to the western rancher. We have only to refer to the evidence of such men as W. J. Wake, J. L. Sexsmith and Walter Ross in order to prove the seriousness of the situation.

Excerpt from the evidence of Walter Ross, Cardston:

"One experience I had four years ago, I was 90 hours going from Lethbridge to Winnipeg, and the cattle were sold and weighed off the cars there. I spent \$8.00 telegraphing to different officials of the Canadian Pacific Railway Company at Winnipeg.

"Q.—That was four years ago? Did you stop on the road to feed and water your cattle?

"A.—Could not stop. They would not let you stop. They kept us all over the road and gave us no opportunity of unloading or feeding.

"Q.—I suppose that would occasion serious loss to you?

"A.—I figured that I lost \$2,000."

Excerpt from the evidence of W. J. Wake, High River:

"Q.—About the runs to Winnipeg, did you ever accompany any of your cattle to Winnipeg?

"A.—Well, yes. I made one trip in January.

"Q.—What time did it take for you to get your cattle from here to Winnipeg on that occasion?

"A.—About 72 hours.

"Q.—Have you got any record of the time you loaded and all that?

"A.—Yes, I have.

"Q.—Would you mind letting us see it?" (Witness handed Mr. Nolan a memorandum.)

"Q.—This memorandum shows the time spent by you on a trip from Calgary to Winnipeg in the month of January, 1907, with 18 carloads of cattle. Did you have a whole trainload?

"A.—No, but we had 18 carloads of cattle.

"Q.—You left Calgary at 15.45, at quarter to four o'clock in the afternoon?

"A.—Yes, sir.

"Q.—You don't recollect what day of the week that was, do you?

"A.—I think it was Sunday, January 6th, 1907.

"Q.—You arrived at Medicine Hat, according to your diary, that same evening half an hour after midnight?

"A.—Yes; half-past twelve that night.

"Q.—When they took you out of Medicine Hat a quarter of an hour later. Then your next stop was at Swift Current, and you got there at five minutes past ten o'clock, and were kept there until three minutes to three o'clock. What was the reason for this delay?

"A.—Well, we had an engine off the track; that was what kept us there.

"Q.—Then according to your diary you arrived at Moose Jaw the next morning at 9.40. That was on Tuesday, and you left there at 10 minutes past 11. What was the cause of the delay?

"A.—Four carloads of cattle went off the track, and they would not allow one car to go through, and it had to be transferred.

"Q.—You arrived at Broadview that evening at 10 minutes to six, and left there at 19.30, or 30 minutes past seven o'clock on Tuesday evening. You arrived at Brandon at one o'clock on Wednesday morning, left there at three o'clock and arrived at Winnipeg at half-past two on Wednesday afternoon, so that the trip took from a quarter to four o'clock on Sunday afternoon until half-past two o'clock on Wednesday afternoon?

"A.—Yes, sir.

"Q.—Were your cattle fed or watered during that trip?

"A.—They were not."

Excerpt from evidence of J. L. Sexmith, High River:

"A.—I was just about nine hours short of being four days and four nights from Calgary to Winnipeg.

"Q.—Did they lose much in weight on the road down?

"A.—They shrunk a little over 300 pounds apiece.

"Q.—How long ago was that?

"A.—I think it was three years ago.

"Q.—Did you accompany the shipment?

"A.—Yes. I went with them. When we got to Calgary they told me they could send me out on a way freight; I could get on a red card freight. Well, we got on this red card freight about eleven o'clock that night, instead of nine o'clock in the evening. When we got to Medicine Hat they put on four cars of horses. As we got further down they put on carloads of stock; in fact we must have had 50 cars on, and by watching the mile posts I figured we were running about three miles an hour at times. Our run was very bad.

"Q.—Did you feed on the road?

"A.—No. When we got to Moose Jaw they said the corrals had been filled with sheep and had not been disinfected; they agreed to run me on in 16 hours from there to Winnipeg provided I would not unload my cattle at Moose Jaw. I agreed to do this, and it took something like two days from there to Winnipeg."

It is of the utmost concern to the Alberta rancher that his cattle reach their destination as expeditiously as possible. In order to prevent a continuance of the above condition of affairs we would recommend that the Railway Commission be asked to compel the C.P.R. Company to run a weekly scheduled stock train, this train to have the right of way after passenger trains, and that its rate of speed be at least 20 miles per hour, not including the time cattle were unloaded for feeding.

We would further recommend in this connection that it be made compulsory, not only for the shipper to unload his cattle once every 42 hours, but that it be made unlawful for any railway company to carry any stock longer than 42 hours without seeing that it is unloaded.

If the above recommendations are adopted it would prevent the unreasonable cruelty to which animals have been subjected by being starved for four or five days while in transit, and again it would be possible to take very wild cattle from Calgary to Winnipeg without unloading.

It is a great advantage to the buyer in Winnipeg to have cattle weighed off the cars, but we wish to point out the injustice to the shipper and producer, and further say that it is practised in no place except in Western Canada.

#### *Delays in Supplying Cars.*

A great deal of complaint has been lodged against the C.P.R. for negligence in the supplying of cars within reasonable time after application was made. In several instances men have had to wait two weeks to have their order filled, and on certain occasions there was a lapse of one month or more between the time application was made and the filling of the order. This causes serious inconvenience for a shipper who removes his bunch from the ranch to the railway company's stock yards. Besides the trouble in feeding and watering, the animals fail a great deal on account of being removed from their natural quarters, and as the western



ranch animal is of nervous and wild disposition it should be the object to place him on the market as quickly as possible after being removed from the range.

In order to explain the situation more clearly we quote from the evidence of J. Day, Medicine Hat:

"A.—Well, I fetched my cattle in here, as I was to have cars on the 13th of November. I had ordered them from the railway company a month before, and I brought my cattle into Medicine Hat to ship them. There were no cars. I was unable to get cars before three weeks after that.

"Q.—How many cars were ordered?

"A.—Twenty-three or 24 cars.

"Q.—Who was in the deal?

"A.—No one but myself.

"Q.—And you had to wait three weeks after the time for which you had ordered the cars, that is, from the 13th of November?

"A.—Yes, sir.

"Q.—Was there any reason that you know of for not giving you cars when there was a lot of stock to be shipped, especially that late time of the year?

"A.—Not that I know of. Well, we had not got into the depth of winter.

"Q.—So that it practically took seven weeks to get your stock shipped after you first ordered the cars?

"A.—Yes, sir.

"Q.—When you did get cars; what kind of cars did they give you?

"A.—They were stock cars.

"Q.—Where did you ship your cattle to?

"A.—Billed them to Toronto, but took them off at Winnipeg.

"Q.—How much did it cost you to keep your cattle here until you could get them shipped?

"A.—It cost probably about \$100 to \$150, but the price in the old country market had gone down in the meantime and I lost between \$1,500 and \$2,000 by selling them at Winnipeg, when if I could have got the cars when ordered I would have got a better price and the cattle would have been exported to the old country."

We find a few instances of engineers being rough in handling of stock trains, abusing the cattle and causing the meat to be in a bruised and deteriorated condition after being slaughtered.

Many men objected that they had to ship their stock to Winnipeg in box cars. We are not in a position to say whether at the same time there were stock cars available or not and that it was simply a case of negligence on the part of the company's officials that stock cars were not supplied, or whether the supply of stock cars is inadequate. We are convinced that at certain times of the year when stock is being shipped extensively the supply of cars is not adequate. This fact has been acknowledged by some of the C.P.R. officials, who are responsible for this line of work.

We find that the C.P.R. have very few stock cars which are furnished with mangers for feeding. This, we believe, would be a valuable addition to the present stock car, and on runs where it is not deemed advisable to unload it would prevent animals from suffering, as they undoubtedly must suffer, from hunger, and would at the same time lessen the heavy shrinkage.

In connection with favouritism shown by the C.P.R. to larger and more extensive shippers, Mr. Hugh, in his evidence, stated that Mr. Gordon's men have keys to all the different pens and corrals in the Winnipeg stock yards, which is a liberty this commission cannot endorse and a privilege which no well managed company will countenance.

One of the most glaring pieces of injustice which has come to our notice in connection with favouritism shown Gordon & Co. by the C.P.R. comes out in the evidence of Mr. McHugh. He states as follows:

"After leaving Winnipeg I was looking over the shipping bills with the conductor, and I discovered three cars of additional freight and asked the conductor what they were, and he said they were three cars of offal, the property of Gordon & Ironsides, shipped to Liverpool. I then asked how many cars he had on, and only then discovered that there were three cars of D. P. McDonald's cattle left standing on the side track and those three cars of offal taken in their place. You will note that these three cars of offal were to go on the same ship, the *Sachen*, from Boston with our cattle to Liverpool."

We might just explain that these three cars of Mr. McDonald's made up part of the trainload in which Mr. McHugh was interested, and it was very necessary that the shipment should all reach Montreal together. This evidence would lead us to believe that Gordon & Co. receive great favours from the C.P.R. even at the expense of those entirely unable to bear it.

Again the evidence convinces us that Gordon & Co. are not the only exporters to receive favours from the C.P.R. We quote from the evidence of one, Mr. Urch, of Lethbridge, who received very doubtful treatment in shipping:

"I shipped with the Little Bow Pool and went to the old country myself. I went with the shipment that Joseph Marion went with.

"Q.—What about the cattle that left Winnipeg after your trainload and arrived in Montreal ahead of you?

"A.—Well, when we left Winnipeg there was some 'T O T' cattle in the yards there, and when we arrived in Montreal these same 'T O T' cattle were there ahead of us. They must have passed us on the road.

"Q.—Do you know why they should have got that preference?

"A.—No, I do not.

"Q.—Do you know who owns the 'T O T' cattle?

"A.—Bader, of Bader & McLean."

We are satisfied that it is the intention of the higher officials of the C.P.R. to furnish the best possible service in the shipping of stock. We are convinced that the fault lies absolutely with their subordinates, men who consider their own comfort above the reputation of the company by which they are employed. On examining such men as F. W. Peters, assistant general traffic manager, and R. R. Jamieson, superintendent of the western divisions, and others we were convinced that they were sincere in their endeavour to furnish first class service for live stock shipments, but that they were not fully cognizant of conditions as they actually exist. Just here we may say that in order to inform these gentlemen of conditions as they have been presented before this commission, and at their request, we have taken from the evidence excerpts which in themselves explain most clearly the careless and unreasonable methods which have been practised, and have forwarded these to the C.P.R. offices in Winnipeg.

We would respectfully recommend that all the complaints against the C.P.R. be taken up with the Railway Commission; further, that copies of the excerpts from the evidence which we have sent to the C.P.R. offices in Winnipeg be forwarded to the Railway Commission, and that it be asked to remedy the several grievances which are therein set forth.

Mr. McHugh states:

"My experience from start to finish in shipping cattle was that all with whom I had to deal were bound to make what they could out of me. First, the hay and feed; second, the rope for ties and the men to cross with the cattle which we found at Boston at \$1.00 per head; third, the space agreed upon here with Messrs. Sparrow & Johnston at 30 shillings per head, crossing from Boston to Liverpool, and when settling I had to pay 37½ shillings. So far as I can learn the ship's agents and Mr. Hugh Gilchrist, the Montreal man who secured the space for me, had 7½ shillings to themselves as whack-up; this will give you some idea how the small ranchers are being robbed. Fourth, then again the agent, Mr. Pritchard, gets 5 shillings per head as his commission, and one-half of that again goes to Mr. Gilchrist of Montreal. I have this information from Mr. Pritchard himself; fifth, the agents in Liverpool have all in their power if not honest to do you in weights when the cattle are slaughtered; sixth, again you have to pay \$6 per head for having them slaughtered, so you can see it is a skin game from start to finish."

In purchasing of ship space in Montreal and at other Atlantic ports, we are led to believe that there is "gambling in space," or in other words, that ship space is bought up and relet at a higher figure. It is easily seen that the small shipper is at a great disadvantage here. Those who are exporting regularly have agents at these different ports to look after such business as the securing of space. Mr. Gordon states in his evidence that when he was paying 30 shillings per head on a certain boat there were those who were paying 35 on the same boat. Mr. Gordon also stated that "a man who makes one shipment cannot hope to get insurance as cheaply as we who ship such a number."

On landing in Liverpool or old country ports the regular exporter has his agent to look after the shipment, while private shippers have informed us that they were not allowed to follow their cattle through the stock yards and on to the slaughter house. These cattle may be kept for ten days in the old country stock yards before being slaughtered and the private shipper has no means of knowing whether his cattle are being attended to or not, but he pays for the service just the same. Again the regular exporter keeps a close watch on his cattle when they are being weighed. Mr. McHugh states that "the agents at Liverpool have all in their power if not honest to do you in the weights when the cattle are slaughtered."

Just here we would mention that the evidence leads us to believe that the small shipper suffers on account of the embargo. If at the time of landing in the old country the market is low it would be a great advantage to keep the cattle for three weeks or a month. As it is at present all imported stock must be slaughtered within ten days after arriving and not infrequently the buyers take advantage of this knowing that the stock must be sold, thus forcing the owner to take a smaller price than he would if it were possible to keep his stock longer. We will confess that on account of not having investigated this matter in the old country we are scarcely in a position to recommend but it appears to us that it would be wise to endeavour to have this time increased from ten days to a month.



There are three methods which the rancher has of disposing of his export cattle. First, through the exporter of the man who buys outright on the range and ships himself to the old country; second, by private shipments; third, exporting through the commission man. As to shipping privately we have to say that those who have attempted it have met with utter failure, almost without exception. It must be expected that the man who undertakes shipping cattle to the old country once in a year or possibly once in two years will meet with trouble which will result in loss of money on account of his unfamiliarity with the details of the shipping business. On the other hand, the exporter and commission man are familiar with the conditions existing and are thereby able to stop the leak, which means the difference between profit and loss in the export business. These men have facilities of their own all along the line, besides having agents in the old country who are thoroughly familiar with the conditions there and assist very materially in the proper working out of the scheme.

It is difficult to determine exactly wherein the difficulty lies when shipping through commission men. We have nothing in the evidence which goes to show that there is dishonesty practised, but nevertheless, the fact remains that many of those who have shipped through commission men have found it most unsatisfactory and it appears to us not only a careless but a dangerous method of doing business.

The condition of affairs was very aptly summed up in private conversation with one of the large exporters of Winnipeg when he said: "The fact of the matter is, gentlemen, that the Alberta rancher raises his steer until four or five years old and then says: 'Stranger, take my bullock,' in other words, the rancher must trust too much to the honesty of the stranger."

Again, in shipping through the commission man the objection is that there are too many people who share the profits. When the final returns are made to the producer he has little left for his trouble.

In selling direct to the exporter the complaint is that he pays too little.

In order to effect an immediate remedy of the export situation we would respectfully recommend that the Alberta government appoint a live stock commissioner whose chief business it would be to attend to the marketing of Alberta export cattle.

This commissioner should be a man thoroughly conversant with the live stock industry and a man sufficiently acquainted with business transactions to enable him to carry such an extensive scheme to a successful issue. We wish to emphasize here that the success of this undertaking on the part of the government will depend very largely on the choice of the commissioner. We would further recommend that this commissioner be entirely under the direction of the department of agriculture and that he be paid a regular salary from a fund collected by imposing a uniform tax on all shippers according to the number of animals shipped, these funds to be handled entirely by the government. We believe that this gentleman could occupy his time very profitably during the whole year, acquainting himself with conditions on the different markets on the continent, with shipping conditions en route, with stock interests at home, etc.

#### *Chilled Meat Trade.*

Throughout our sittings in the southern part of the province there were many witnesses who advanced the argument that the establishment of a chilled meat trade with the old country was the proper method by which to solve the export problem. We are given to consider the views of one, Dr. Duncan McEachern, as those of a man who carries considerable weight. Dr. McEachern has been manager of the Waldron ranch since 1883, a veterinary surgeon by profession, and has occupied high positions throughout the Dominion of Canada. He was at one time surgeon in Montreal Veterinary college, dean of the faculty of comparative medicine, McGill university, chief inspector of stock for the Dominion of Canada, having organized the quarantine system and conducted it for 25 years. Dr. McEachern states that for a number of years he has been greatly interested in the establishment of chilled meat trade but he believes that the difficulties in the way are insurmountable. The sum total of his lengthy argument is that the capital necessary would be enormous. Nevertheless, he states if a dressed meat trade could be established successfully it would be of great benefit to the producer. It would increase the value of his cattle easily from 25 to 30 per cent. He is of the opinion that if the government would undertake the enterprise and could see their way clear to bringing it to a successful issue it would mean the placing of the meat industry of Western Canada on a new basis.

Undoubtedly there is considerable in favour of the chilled meat system. In the first place there would be the advantage of shipping the carcass to England in a dressed form which would cost considerably less than shipping on foot and would do away almost entirely with risk. Our meat would not be in a bruised condition as a result of the abuse the animals are subjected to incident to the long

train haul. If the system were brought into operation it would do away entirely with the present grievances of the shipper. We are told by some that the chilled meat sells for as high a price as that which is offered in the fresh form. Others tell us that it will sell for from 1 to 2 cents per lb. less. Dr. McEachern states that the English people would prefer it infinitely if all the beef we supply from this country would come in that chilled form.

We regret to state that our investigation in this matter has not been sufficiently complete to warrant us making any recommendations. We would respectfully ask your consideration of the advisability of further investigation.

We commend it as a subject worthy of investigation in every detail.

*Alleged Combine Amongst Buyers.*

One of the duties imposed upon the commissioners was the ascertainment of whether there exists or has existed or is likely to exist any combination in restraint of or affecting trade in cattle, sheep, hogs or meat or any or all of them in the province or elsewhere, such as would infringe upon the provisions of the Criminal Code of Canada, 1892, and amendments thereto.

We wish to say that we have probed this matter in every detail and although the producers furnished a great deal of circumstantial evidence that there was an agreement amongst buyers of cattle in the allotting of districts for operation and that one would not trespass upon the territory of the other, and it was also intimated that buyers agreed as to prices, but on no occasion have we been able to elicit information which would substantiate the charges. Questions pertaining to the existence of a combine were asked those charged with implication and without exception these men emphatically denied the charge. Mr. Burns states under oath:

"I say there has never been a combine in cattle in the existence of this country as far as I know."

Excerpt from evidence of J. T. Gordon, Winnipeg:

"Q.—Your name is connected with Pat Burns. What are your business relations?

"A.—We have been accused of this, that we sent Pat Burns out. He is a bigger man than any of us. For us doing that, that we were sending him out to get the export cattle is absolutely untrue. There is no more connection in the business of Pat Burns with any one of the members of the firm of Gordon, Ironsides & Fares than there is between the chairman of this commission and me and never has been."

Many of the smaller buyers stated that P. Burns set the price for the animals that were used locally. Men who bought in greater numbers and shipped to Canadian and American points stated that they set their prices by the Winnipeg, Chicago and Montreal markets. Those who shipped to the old country stated that they were advised as to prices in the old country and bought accordingly. Mr. Burns, who perhaps can not be included in any of these classes, stated:

"Well, when the market in the old country is high I fix my price by that. Q.—But how when the old country market is low? A.—Well, then I fix my price according to my own best judgment."

When the producer was asked how he set the price on his animal the invariable answer was that he had to take what he was offered and that he mostly took the first offer for fear he should never get another.

In this connection we would like to mention that although Burns & Co. are very extensive buyers of all classes of cattle in this province, of late they have done no exporting, their export cattle being turned over principally to Gordon & Ironsides, of Winnipeg. We know that Mr. Gordon has selected Mr. Burns' cattle at the shipping point, taking the exports to Winnipeg, while Mr. Burns took the remainder or butcher's stuff to Calgary. Some of the producers objected to this method, claiming that it was proof that there was an agreement between the two companies. We have to say that we are of the opinion that such business is quite legitimate, in fact we are of the opinion that it is a method which has proved of direct benefit to the stock raisers of the province in that Mr. Burns when purchasing does not cull the bunch as most of the buyers are obliged to do.

For some reason there is a lack of healthy competition in the buying of cattle in this province. Almost without exception the producer made the complaint that there was an absolute lack of competition.

One reason why there are not more buyers in the country is that the exporting business is an extensive one and as we stated before can only be executed successfully by men of exceptional ability and possessors of large capital.

Another reason why there is not greater competition in the buying of cattle is due to the fact that buyers cannot handle with profit the poor class of animals which is offered for sale. If the stock were better bred and better finished we are satisfied that there would be a greater demand for it and thus there would be increased competition.



*Stock Yards.*

The stock yards in the following places were visited: Calgary, Moose Jaw and Winnipeg.

We heard little or no complaint against the Calgary yards. The Moose Jaw yards received a great deal of adverse criticism from both the large and small shippers. Practically all Alberta cattle which are shipped east are fed at the Moose Jaw yards. The C.P.R. have them leased to a private individual who has the exclusive right to sell hay to shippers. In return for which he is supposed to attend to the yards. In some cases the shipper is charged \$10 a ton and in others \$20, and in certain cases even more.

Mr. McMullen, the C.P.R. live stock agent, states in his evidence as follows:

"Q.—Is there any limit as to the price he is allowed to charge for hay? A.—There is a schedule of prices posted up at the yards. Q.—What is the highest price that can be charged? A.—\$20 a ton, at least that is my understanding."

In this connection we quote from the evidence of P. Burns, of Calgary:

"Q.—Have you any complaints as to your treatment at Moose Jaw. A.—Not particularly, I buy hay there at \$10 per ton."

Again we quote from the evidence of C. Knight, of Calgary:

"Q.—You have shipped through Moose Jaw. We have heard a great deal of complaint about that. Give the commissioners an idea of your experience there. A.—My experience regarding my accommodation and water was satisfactory. The hay was not satisfactory. Q.—What was the matter? A.—The matter is that the C.P.R. sell you hay in Moose Jaw stock yards at so much a rackful. They do not weigh the hay. Q.—You think you did not get just weight? A.—Well, I want to buy my hay on the scales, but they charged \$5 a rack for hay at Moose Jaw and you don't know how much you are paying for. Q.—Did they ever weigh your hay in Moose Jaw? A.—No. Not for me. Q.—You think that they overcharge you? A.—Yes. Of course I always kick about having my hay weighed. Q.—Do you know what they charge for hay in Moose Jaw a ton. A.—I was told that it was sold at \$20 a ton. Q.—I understand that it was higher. A.—I know for I had a shipment last week. Q.—I understand it was \$25. A.—I guess they get \$30 when they can. I gave the C.P.R. a cheque for \$34 for 34 bales of hay, I figured that the bales would weigh about 60 lbs. each. That would be \$34 for about 2,040 lbs. I figured that I was paying at the rate of about \$34 a ton. I insisted upon them weighing the hay but they said if I did not like it I could do without the hay."

We could quote from the evidence of others to show that the small shippers suffer an injustice in the buying of hay, but there is sufficient in the above excerpts to explain matters fully. This is indeed a great injustice. Besides this the hay is of poor quality; the yards are poorly kept and things are in an unsatisfactory condition generally. We were asked by a C.P.R. official in Winnipeg to inspect the yards and report to him, and if in the report we condemned them they would be taken over again and managed by the C.P.R. Co. We may say that we have advised the company of the condition of affairs and we believe that matters will be remedied. We would further advise that all the stock yards be taken over by the company.

Reference to Winnipeg yards will be made in a treatment of Manitoba conditions.

*Shrinkages.*

By the shrinkage system we mean the method the buyer has of safeguarding himself against loss in shipping. In the first place there is a very serious shrink in our grass fed cattle if long in transit. On account of the railway company causing long delays in certain shipments and the consequent heavy shrinkage, the buyer safeguards himself by making a 5 per cent. shrink on all cattle when buying, thus causing the producer to stand the loss, which in our opinion should be borne by the buyer. It has now become a sort of custom with the buyers to shrink whether it is reasonable to do so or not and thereby the shrinkage system is badly abused. We have instances in the evidence where men have driven cattle a hundred miles and have then had them subjected to a 5 per cent. shrink. In other cases where cattle have been starved 12 and 15 hours men have been charged the same 5 per cent. shrink. When the producer is asked why he stands for such treatment his answer is: "We cannot dictate in making the bargain. We must accept what we are offered or keep our stock." For this reason he asserts that there is no competition amongst buyers and that there is an illegal combine existing. When the buyers were asked to give reason why this unreasonable shrinkage was charged, they maintained that it was a mere matter of business between themselves and the seller. Again there are occasions when the shrinkage system is abused and is used by the buyer as a mere cloak to make the producer believe that he is receiving a higher price per pound than he really is. Let us consider what a 5 per cent. shrink means

in any single trainload of cattle. On a 1,200 lb. animal it means 60 lbs. off and on 20 animals in a car it means 1,200 lbs. off or one animal per car; thus, if we have 20 cars in a trainload, it means 24,000 lbs., which at 5c per pound means \$1,200 in one train load, indeed a very fair profit in the shrinkage business alone.

The shrinkage system in our opinion is simply robbery and an imposition on the producer of cattle in this country.

#### *Brand Inspections.*

The system of brand inspection is on the poorest possible basis. Certain men designate it as a "dead letter," others as a "nuisance," and there was scarcely one instance where a man was satisfied with the systems now in vogue. In many cases the evidence goes to show that the brand inspector would sit in his office and ask the shipper for a list of brands without ever seeing the cattle that were shipped. In the majority of cases the brand inspectors at present engaged are not competent men, not being able to decipher the plainest brand. The system is not only worthless from a protective standpoint but it is an injustice to shippers. The shipper is frequently subjected to the annoyance of having to search for the inspector when something more important should be occupying his time. He also has to pay the sum of 5 per cent. per head for services which are of absolutely no value or protection to him. On examining some of the brand inspectors we found, that on certain occasions they had to pay out in the neighbourhood of \$2 for expenses in order to inspect a few cattle when the amount actually received for their services was not a dollar. It is not reasonable to expect then that we can secure competent men under such a system.

As a result of such loose inspection Mr. Patterson, the brand inspector employed by the Western Stock Growers' Association and stationed at Winnipeg, was enabled last year to detect no less than 175 stray cattle in the season's shipments; cattle which otherwise would have been a complete loss to the owners. Just here we might state that a number of people suggested that Mr. Patterson should be paid by the provincial government as he inspected all Alberta cattle going into Winnipeg stock yards, whether belonging to members of the association or not. When Mr. Patterson was informed of this in Winnipeg he stated emphatically that he would not work for any government. We are of the opinion, however, that the government grant to the association should be sufficiently large to pay Mr. Patterson's salary.

As a remedy for the present system of brand inspection, your commissioners beg to recommend that brand inspectors in this province be dispensed with absolutely, that the shipper be asked to furnish the transportation company with an affidavit as to the number of animals in his shipment, together with the sex and brand, and that the owner or his agent furnish an affidavit of a similar nature, and that it be illegal to ship stray animals unless it can be proven that the shipper had authority from the owner of the animal to do so. In order to facilitate matters for shippers we would further recommend that station agents be made commissioners to take affidavits. With Mr. Patterson in Winnipeg as a safeguard, and indirectly paid by the government, the people of the province would be absolutely protected and all inconvenience and unnecessary expense would be done away with.

#### *Hide Inspection.*

The hide inspection law as it is at present is not serving any important purpose. However, we are unable to suggest anything that will meet the conditions. We would recommend that the present law be more rigidly enforced.

### FINDINGS AND RECOMMENDATIONS.

#### *Sheep Industry.*

1. That the government undertake sheep feeding experiments in connection with cattle feeding experiments.
2. That the government bring in an importation of pure-bred sheep and distribute them in small lots throughout the Province.

#### *Pork Industry.*

3. That the government assist in the erection of one pork-packing plant to be located between Calgary and Edmonton, and that they take over the entire management of the concern.



*Beef Industry.*

4. That the government establish three cattle feeding experiment stations, distributing them properly throughout the province and conduct such experiments as will demonstrate the feasibility of the cattle-feeding business.

5. That we do not deem it wise that the government take any active steps in the matter of a canning plant until the two plants now in the course of erection are in operation and results therefrom determined.

6. That we do not find any combine in restraint of trade in the retail butchers' trade.

7. That legislation be enacted which will protect dumb animals from unnecessary cruelty in the slaughterhouse, and that it be made compulsory for all animals to be shot in the head.

8. That the Railway Commission be asked to compel the C.P.R. Company to run a weekly scheduled stock train, this train to have right of way after passenger trains. That its rate of speed be at least twenty miles an hour, not including the time cattle are unloaded for feeding.

9. That it be made compulsory for the shipper to unload his cattle once every 42 hours, and further that it be made unlawful for any company to carry stock longer than 42 hours without seeing that it is unloaded.

10. That all complaints against the C.P.R. be taken up with the Railway Commission, and, further, that copies of the excerpts from the evidence which have been forwarded to the C.P.R. offices in Winnipeg be forwarded to the Railway Commission, and that they be asked to remedy the several grievances which are herein set forth.

11. That the time which cattle may be held in the old country before slaughtering be increased to one month.

12. That the government appoint a live stock commissioner, whose chief business it would be to attend to the marketing of Alberta export cattle, and that he be paid a regular salary by the government, and that the government impose a uniform tax on all shippers according to the number of animals shipped by the said commissioner.

13. That our investigation into the chilled meat trade has not been sufficient to warrant us making any recommendations and that we respectfully ask your consideration upon the advisability of further investigation into this matter.

14. That we have not found that there exists or has existed any combination in restraint of or affecting trade in cattle, sheep, hogs or any meats or any or all of them in the province or elsewhere such as would infringe upon the provisions of the Criminal Code of Canada.

15. That stock yards are not conducted in a systematic manner, and we would therefore recommend that all stock yards be managed by the railway companies.

16. That cattle should be bought and sold without shrink.

17. That the brand inspection system now in vogue is worthless, and we therefore recommend that all brand inspectors be dispensed with, and that the shipper of stock be asked to furnish the transportation company with an affidavit as to the number of animals in his shipment, together or with the set and brand, and that the owner or his agent furnish an affidavit of a similar nature unless it can be proven that the shipper had authority from the owner of the animal to do so.

18. That the present hide inspection law be most rigidly enforced.

## CONCLUSION.

We regret to have to state that there were many questions in connection with the meat trade which should have been investigated at points further east and in the old country. A knowledge of conditions in Montreal, the difficulty of securing space, the marking and sorting of cattle, a knowledge of conditions on the ocean voyage, treatment of stock in the old country, killing and marketing, comparison of our stock with that sent from other countries and various other problems are all matters which would have aided us very materially in arriving at a finding.

As it is we believe that we have been obliged to stop at the place where investigation was the most necessary. Had we been able to trace the Alberta steer from the range right to the consumer in the old country and at the same time investigate in thorough detail the chilled meat system and familiarize ourselves with various questions, the details of which we are largely ignorant, we would have been able to arrive at a finding sufficiently superior to the one now completed, as to much more than justify the additional expenditure.

All of which is respectfully submitted.

(Signed) ALEX. MIDDLETON,

*Chairman.*

(Signed) ALEX. M. CAMPBELL.

## III.—CROPS.

## WEATHER CONDITIONS AND STATISTICS.

The supervision of the voluntary meteorological service in the province started by the Territorial Department has been continued under the direction of the Dominion Meteorological Office at Toronto. During the year a number of new observers were appointed and the following is a complete list of all stations in operation in 1907:

## METEOROLOGICAL STATIONS IN OPERATION, 1907.

STATION	Latitude	Longitude	Altitude	OBSERVER
	°	°		
Alix.....	52 24	113 10	2870	A. A. Wright.
Banff.....	51 10	115 34	4542	N. B. Sanson.
Blackfalds.....	52 24	113 47	2876	G. L. Gregson.
Bon Accord.....	53 53	113 24	2100	John Schofield.
Bardo.....	53 17	112 47	....	J. E. Jevning.
Beaver Hills W.....	53 43	113 2	....	Clement Hoyler.
Bismark.....	52 44	113 53	....	Henry Nagel.
Bruederheim.....	53 48	112 55	....	Chas. A. Albrecht.
Bittern Lake.....	53 4	113 0	2860	E. C. Roper.
Calgary.....	51 2	114 2	3389	Miss M. Bradin.
Cardston.....	49 12	113 18	....	Martin Woolf.
Coutts.....	49 0	111 57	....	N. R. Oliver.
Clover Bar.....	53 37	113 23	....	James Drysdale.
Conjuring Creek.....	53 12	113 47	....	J. A. Sangster.
Didsbury.....	51 40	114 8	3300	C. S. Peterson.
Dunvegan.....	55 56	118 35	1302	F. J. H. Bedson.
Doreenlee.....	52 41	112 52	....	C. Nixon.
Edmonton.....	53 33	113 30	2158	H. S. Young.
Fort Vermilion.....	58 27	116 3	950	Rev. A. S. White.
Gray Hill.....	52 15	113 35	2795	Robert Gray.
Gleichen.....	50 59	112 54	2952	Rev. Canon Stocken.
Grassy Lake.....	49 50	111 18	2652	D. K. Shawson.
Hillsdown.....	52 14	113 29	2940	R. E. Fiske.
High River.....	50 35	113 53	3394	Louis M. Roberts.
Heather Brae.....	52 56	112 40	....	A. W. Fleming.
Islay.....	53 24	110 32	....	J. R. Giles.
Innisfail.....	52 2	113 56	3087	Henry George.
Josephsburg.....	49 45	114 16	....	James Robinson.
Jumping Pound.....	51 5	114 33	....	Cecil E. Byron.
Kneehill.....	51 31	113 22	2800	Alex. Wyndham.
Kimball.....	49 5	113 12	....	E. D. Mallery.
Lawrence.....	50 16	113 26	....	A. D. Meacham.
Lethbridge.....	49 42	112 51	3240	C. B. Bowman.
Lacombe.....	52 28	113 44	2783	C. E. Craig.
Lacombe (2).....	52 28	113 44	....	P. J. Crow.
Leavings.....	49 52	113 31	3263	Andrew Russell.
Medicine Hat.....	50 1	110 37	2161	Walter Crosskill.
Macleod.....	49 44	113 24	3090	Officer Commanding, R.N.W.M.P.
Macleod (2).....	49 44	113 24	....	N. J. Stapleton.
Magrath.....	49 26	112 54	3210	W. J. Hopkin.
Mayton.....	51 51	113 45	....	A. M. Bauman.
Morinville.....	53 49	113 39	....	O. N. Laval.
Okotoks.....	50 43	113 59	....	Henry R. Harper.
Pincher Creek.....	49 30	113 58	3750	G. W. Gill.
Pakan (Victoria).....	54 0	112 31	....	Gordon A. Mitchell.
Peace River Crossing.....	56 15	117 15	....	H. A. George.
Pekisko.....	50 26	114 14	3394	F. R. Pike.
Ponoka.....	52 40	113 34	2633	John Hagemann.
Red Willow.....	52 27	112 30	....	Mrs. W. S. Fulton.
Shaftesbury.....	....	....	....	Miss L. Millen.
Sion.....	53 54	114 15	....	Geo. K. Cottman.



METEOROLOGICAL STATIONS IN OPERATION, 1907—*Continued.*

STATION	Latitude	Longitude	Altitude	OBSERVER
Stirling.....	49 31	112 32	....	Theo. Brandley.
Saddle Lake.....	54 0	111 44	....	J. W. Carroll.
Taber.....	51 0	113 0	....	Westlake Bros.
Three Hills Creek.....	51 30	113 11	3190	W. E. Cutler.
Vermilion.....	53 21	110 51	....	D. J. Perry.
Wetaskiwin.....	52 58	113 23	2480	J. H. Walker.
Waitefield.....	53 29	111 38	2000	Thomas B. Waite.
Wabamun.....	53 29	114 25	....	John C. Haddock.

## MONTHLY WEATHER REVIEW, 1907.

**JANUARY.**—The weather of January was very cold and stormy; high winds were of frequent occurrence. The snowfall was in many localities in excess of the average, and the negative departure of the temperature from the average was phenomenal. Railway traffic was greatly impeded owing to drift, and much loss of cattle was occasioned by the extreme cold.

*Calgary.*—January weather was intensely cold throughout,—the coldest for twenty years; much suffering amongst cattle and heavy losses reported.

*Edmonton.*—A month of severe, cold weather; threshing operations entirely suspended. Strong wind on 23rd and 25th; drifting roads; stock in good order; feed plentiful; ninety-eight hours of bright sunshine.

*Medicine Hat.*—Severe and continued cold weather during January, with occasional very low temperatures; considerable loss in range cattle is expected.

**FEBRUARY.**—This month opened with high winds, snow and drift, and for five days the weather was extremely cold. On the 6th it began to moderate and by the 7th milder conditions were general which continued until the 18th. During the last ten days there were two cold waves from the north which were fairly severe, the two being separated by mild weather during the 22nd and 23rd.

*Edmonton.*—Month fine and bright, one hundred and thirty-three hours of bright sunshine, only eleven days zero weather; stock in good order, feed plentiful.

*Medicine Hat.*—Fine mild weather after 4th, lasting through the month, very beneficial to ranges; stock losses not so heavy as anticipated.

*Calgary.*—The first four days of February were intensely cold, after which the weather was very mild, bright and warm.

**MARCH.**—The weather of March was unseasonably cold.

*Calgary.*—March weather, although often fine and bright was cold throughout. The snowfall was considerable but there was very little snow left at the close of the month.

*Edmonton.*—One hundred and eighty-four hours of bright sunshine; very little thaw; snow in woods deep; rivers and lakes solid; no summer birds.

*Medicine Hat.*—Weather of March generally fine and dry with cold northerly winds, frost not out of ground sufficiently for plowing; range conditions good.

**APRIL.**—The weather of April was unusually cold and backward, the precipitation which occurred being chiefly as snow. Under the existing conditions farming operations were practically at a standstill and the month closed with wintry weather still prevailing.

*Edmonton.*—Raw cold month, no ploughing or seeding, very little growth of any kind; lakes all solid ice, ice ran out in river on the 24th, geese seen on the 20th, rooks and robins on the 21st; frogs the 22nd; two hundred and twenty-one hours of bright sunshine; constant winds from the north-west.

*Calgary.*—Weather cold and disagreeable all month; spring work very backward, being a full month behind; late winter wheat in fine condition, never better at this time of year.

*Medicine Hat.*—Cold dry weather during April; northerly winds and frosty nights keeping grass back; not much seeding done.

**MAY.**—Cold weather with a very general deficiency in the amount of precipitation was the feature of the weather of May. However, notwithstanding the unfavourable conditions, reports indicate that crop prospects were very fair.

*Edmonton.*—The weather of May was unusually cold with frost nearly every night. Seeding nearly finished. Grain coming on very quickly; trees beginning to leaf out; grass good; rise in river not as high as usual; sloughs dry for season.

*Calgary.*—The weather was cold and disagreeable. Vegetation very slow and gardens backward; fall wheat in fine condition.

*Medicine Hat.*—Cold with dry northerly winds to 20th, light rains and higher temperature following. Crops looked well and grew rapidly.

**JUNE.**—The weather in June was quite seasonable and most favourable for growth. All kinds of grain crops doing well; stock in fine shape.

*Edmonton.*—Good growing month; grass and grain fully as well advanced as last year; vegetables backward but coming on fast; the Saskatchewan rose suddenly twelve feet on 14th, carrying away over one hundred thousand saw logs; it subsided quickly; several slight thunderstorms, but no very heavy storms.

*Calgary.*—June was warm and showery and growth was very rapid; crops all looked excellent.

*Medicine Hat.*—Fine and warm weather with good rainfall during June; grass and grain crops grew fast.

**JULY.**—The amount of precipitation recorded in July was less than the average. Temperatures did not differ from the normal.

*Edmonton.*—With 295 hours of bright sunshine and a sufficiency of moisture fine growth has been very rapid; all grains are heading out, fall wheat has done well and will soon be ready to cut; hay is a good crop, also roots and vegetables; native fruits of all kinds very plentiful; Saskatchewan river still high but small creeks are falling.

*Medicine Hat.*—Dry, warm weather during July; very light rainfall; some districts report grain crops in need of rain; grass plentiful.

*Calgary.*—July a good month; light thunderstorms frequent; grain crops and gardens doing well; prospects for a splendid yield.

**AUGUST.**—Rain fell frequently during the month and in nearly all localities in large quantities, cool conditions also often obtained, and on one or two occasions light local frosts were recorded.

*Edmonton.*—220 hours of bright sunshine during the month and some very heavy showers of rain, frost on one or two nights, one degree on the 19th, just freezing on the 31st; damage to crops very light, tender vegetables and flowers unhurt. Some fall wheat and barley cut. Roots of all kinds are heavy crop, considerable amount of hay spoiled by rain.

*Calgary.*—August was cool and wet throughout, no frost to damage anything; winter wheat harvested and partly threshed, magnificent crop; the cool, wet weather has been greatly against the spring crops but they are now ripening; roots and vegetables fine.

*Medicine Hat.*—Moderately warm weather during August, a few cold nights, no frost, hay harvest nearly finished, grain ripening fast.

**SEPTEMBER.**—The weather of September was not particularly fine. It was nearly everywhere much cooler than usual and frosts at night were often experienced. There was also a deficiency of sunshine and on one or two occasions snowstorms were locally recorded; however, considering the general weather conditions prevailing, the harvest, although below that of preceding years, is reported to be fairly good.

*Edmonton.*—170 hours of bright sunshine; 5 degrees of frost on the 18th, 7 on the 28th; reports as to damage to crops conflicting, half of the crop probably harvested safe and half of the remainder slightly, and the balance badly frozen; root crops good; many varieties of flowers still in fine bloom, river high for the time of year; two slight falls of snow.

*Calgary.*—September weather was cool and mostly wet; very little damage done by the snowstorms; crops very good and mostly harvested.

*Medicine Hat.*—Weather generally fine during September; a few cold days with light rains; harvest about finished; crops a little below average.

**OCTOBER.**—The weather of October was remarkably fine in all localities.

*Edmonton.*—A month of beautiful weather, two hundred and six hours of bright sunshine, very little rain or wind. Threshers busy, oats turning out fairly well; rivers low, trails never were better.

*Calgary.*—October has been a most delightful month, warm and bright, no precipitation except on the first day, strong winds during the last week.

**NOVEMBER.**—November was a fine open month with practically no precipitation.

*Edmonton.*—November has been a month of exceptionally good weather, 103 hours of bright sunshine, no snow and nominal rainfall, no severe frosts, no bad storms; Saskatchewan River set fast on the 21st; threshers busy, considerable feed oats coming to market but not much wheat.



*Calgary.*—November has been bright and pleasant, two slight snowflurries being the only moisture; very high southwesterly winds were frequent.

*Medicine Hat.*—Continued mild and open weather during November; no storms or low temperatures; very favourable for the fall plowing.

DECEMBER.—The weather of the month was unusually mild with very few strong winds and a marked absence of snowfalls.

*Edmonton.*—December a very fine month; 71 hours of bright sunshine; zero temperatures on four nights only, lowest 18 below; just enough snow to make good sleighing but not enough for lumbering. Cattle still able to feed out in the day time, no high winds.

*Calgary.*—A delightful month, bright and bracing. The mercury dropped below zero on three times only; snowfall very light; building operations still being carried on briskly.

*Medicine Hat.*—The weather during December was notably fine with moderate temperatures and a light snowfall. Just what was wanted for the stock rangers.

I.—ANNUAL PRECIPITATION from 1896 to 1907, inclusive.

STATION	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	Average
Athabasca Landing.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.45	.....	.....
Alix.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.00	13.91	13.45
Banff.....	15.86	23.40	20.58	26.34	23.30	19.27	30.59	24.80	14.80	16.00	14.88	23.54	21.11
Blackfalds.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.16	19.61	17.38
Bon Accord.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.63	14.52	16.07
Calgary.....	16.05	20.58	16.21	26.15	17.57	22.31	34.57	22.77	18.89	14.12	16.24	14.96	20.03
Calgary (Ex. Stn.).....	13.46	21.75	15.82	27.90	.....	21.54	34.17	21.31	15.22	15.59	17.95	.....	20.47
Didsbury.....	.....	.....	.....	.....	.....	23.07	.....	21.80	14.39	21.72	22.07	.....	21.69
Dunvegan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.49	8.66	11.57
Edmonton.....	15.24	14.54	10.90	24.89	27.80	27.83	20.66	21.06	19.87	15.56	13.48	16.62	19.03
Gray Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.30	17.52	15.96
Gleichen.....	.....	.....	.....	.....	.....	.....	.....	15.83	10.06	11.19	16.61	11.39	13.01
Hillsdown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.06	17.51	16.78
Kneehill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.18	5.30	8.24
Lethbridge.....	.....	.....	.....	.....	.....	.....	28.13	14.82	11.42	13.78	22.48	15.50	17.68
Medicine Hat.....	18.18	17.25	15.90	22.28	22.05	20.80	13.68	9.90	9.70	8.99	11.62	6.96	14.77
Macleod.....	12.73	12.69	13.59	19.74	10.08	12.21	10.48	9.73	5.34	11.63	20.82	12.40	12.62
Pincher Creek.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.63	.....	21.63
Petasko.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.86	19.85	18.85
Red Deer.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.45	.....	.....
Three Hills Creek.....	.....	.....	.....	.....	.....	.....	.....	18.00	11.22	17.89	15.25	13.77	15.22
Pakan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.83	18.32	17.07
Fort Vermilion.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.23	11.59	9.91
Wetaskiwin.....	.....	.....	.....	.....	.....	.....	.....	20.87	18.14	13.18	16.64	17.97	17.36
Waitefield.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.57	17.07	20.82



## II.—MONTHLY PRECIPITATION, 1907.

STATION	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Alix.....	1.33	0.25	0.22	0.30	1.07	3.38	1.50	2.35	2.30	0.75	...	0.47	13.91
Banff.....	1.64	0.56	1.55	1.63	3.31	2.80	1.90	4.26	2.60	0.96	1.22	1.11	23.54
Blackfalds.....	1.23	0.30	0.32	0.11	1.39	4.61	2.34	4.21	3.18	0.74	0.85	0.33	19.61
Bon Accord.....	0.83	0.63	0.50	0.37	1.70	2.77	1.78	3.56	1.44	0.19	0.15	0.60	14.52
Bardo.....	0.40	0.24	0.25	0.15	0.95	2.80	2.35	4.68	3.44	...	...	0.33	15.59
Beaver Hills W.....	0.65	0.38	0.48	0.39	1.49	2.90	2.42	4.64	1.50	0.04	0.03	0.89	16.81
Bismark.....	0.75	0.60	0.55	0.08	0.86	4.83	2.80	3.99	2.56	0.33	...	0.79	18.14
Bruderheim.....	0.60	0.60	0.30	0.46	2.56	2.64	1.73	3.30	1.42	0.25	0.01	...	12.07
Bittern Lake.....	...	0.75	0.70	0.45	1.40	2.74	2.27	5.52	1.94	0.31	0.06	1.05	17.19
Calgary.....	0.40	0.20	0.76	1.79	1.04	3.76	0.85	3.34	2.49	0.15	0.08	0.10	14.96
Cardston.....	3.60	0.20	1.20	1.80	3.39	3.76	2.55	2.48	4.49	0.01	...	...	23.48
Coutts.....	2.60	0.60	0.90	1.30	3.85	1.47	2.00	0.50	3.45	0.25	...	0.05	16.97
Clover Bar.....	0.60	0.28	0.50	0.60	2.26	0.98	3.25	...	...	...	0.11	...	8.47
Conjuring Creek.....	1.23	0.90	0.62	...	1.75	3.93	1.74	5.08	2.14	0.32	...	0.75	18.57
Didsbury.....	1.30	0.60	1.00	0.90	1.70	5.33	3.93	4.49	7.03	0.43	...	0.40	27.11
Dunvegan.....	...	1.45	0.45	...	0.72	2.33	1.88	0.19	0.95	0.40	0.14	0.15	8.66
Dorenlce.....	2.00	0.80	0.70	0.40	1.26	3.67	2.94	4.63	1.85	0.29	0.03	0.93	19.50
Edmonton.....	1.04	0.27	0.50	0.49	1.60	3.09	2.79	4.66	1.32	0.19	0.11	0.56	16.62
Fort Vermilion.....	0.30	0.30	1.10	0.42	0.45	2.15	3.49	1.09	0.64	0.05	1.40	0.20	11.59
Gray Hill.....	1.35	0.35	0.74	0.65	1.43	3.33	1.64	3.72	2.85	0.53	0.20	0.73	17.52
Gleichen.....	...	0.10	0.35	0.59	0.90	6.05	1.12	1.23	...	...	...	0.05	11.39
Grassy Lake.....	1.30	0.20	0.35	0.40	1.00	0.40	0.04	0.20	1.55	...	0.10	0.10	4.94
Hillsdown.....	1.25	0.45	0.75	0.72	1.38	3.30	1.47	3.76	2.96	0.48	0.26	0.73	17.51
High River.....	0.65	0.05	0.90	1.16	0.57	4.05	1.10	3.39	2.53	0.30	0.20	1.15	16.05
Heather Brae.....	1.38	0.47	0.87	1.00	1.84	3.46	1.99	5.14	2.49	0.85	0.06	0.67	20.22
Islay.....	0.35	0.01	0.29	0.18	0.70	...	...	...	...	...	...	...	1.53
Innisfail.....	1.00	0.27	0.50	0.45	3.34	...	...	...	1.16	...	0.30	...	5.56
Josephsburg.....	1.25	0.50	1.00	0.63	1.84	3.07	0.78	1.53	...	...	0.30	...	11.56
Jumping Pound.....	0.58	0.26	0.57	0.75	0.97	3.67	1.41	4.97	2.06	0.21	0.30	0.34	16.09

## MONTHLY PRECIPITATION, 1907—Continued.

STATION	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Kneehill.....	....	....	....	0.03	0.90	2.85	1.32	1.74	2.59	0.20	....	0.20	5.30
Kimball.....	....	....	....	....	....	....	....	1.02	2.75	....	....	0.20	4.53
Lawrence.....	0.67	0.15	1.17	1.24	0.83	3.06	0.78	1.02	3.24	0.02	0.30	0.20	12.19
Lethbridge.....	1.52	0.30	0.34	1.08	1.14	3.64	1.43	2.30	....	0.05	0.14	0.32	15.50
Lacombe.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lacombe (?).....	1.20	0.53	0.15	....	0.49	5.50	3.23	4.10	3.00	0.11	0.01	0.20	18.52
Leavings.....	....	....	....	....	....	....	1.27	2.37	....	....	....	....	3.64
Medicine Hat.....	0.75	0.25	0.51	0.40	0.65	1.69	0.92	0.62	1.01	....	0.01	0.15	6.96
Macleod.....	0.50	0.30	1.19	0.91	1.30	3.57	0.78	1.59	1.96	....	0.05	0.45	12.40
Macleod (?).....	0.40	0.36	1.39	3.33	1.17	4.47	0.22	3.72	4.12	0.15	0.15	....	19.48
Magrath.....	2.30	0.50	1.30	1.70	1.64	3.25	6.49	1.03	3.76	0.17	0.05	0.30	16.49
Mayton.....	1.30	0.30	0.70	0.70	0.97	4.61	2.63	3.75	1.76	0.32	....	....	17.04
Morinville.....	0.20	0.15	0.13	0.38	1.53	2.73	1.83	2.85	0.60	....	0.05	0.20	10.65
Okotoks.....	....	0.10	1.08	0.85	0.84	4.55	1.29	3.30	0.27	....	....	0.65	12.93
Pincher Creek.....	No Report	....	....	....	....	....	....	....	....	....	....	....	....
Pakan.....	....	0.20	0.71	0.20	1.61	1.78	3.14	4.41	3.49	2.00	0.10	0.68	18.32
Peace River Crossing.....	....	....	....	....	....	....	....	0.77	1.11	0.29	0.56	0.08	2.81
Pekisko.....	1.23	0.85	0.60	1.80	1.12	4.58	1.78	4.51	2.68	0.02	0.23	0.45	19.85
Ponoka.....	1.00	0.20	0.60	....	1.37	5.77	2.21	4.65	2.64	0.30	0.04	0.75	19.53
Red Willow.....	....	....	....	0.35	0.63	1.39	1.78	4.11	1.68	0.49	0.21	0.80	11.44
Shaftesbury.....	....	....	....	0.47	0.69	2.20	2.80	0.87	0.70	0.30	0.30	0.10	8.43
Sion.....	0.50	0.92	1.00	0.32	1.86	4.17	2.44	3.43	1.55	0.34	0.08	0.50	17.11
Stirling.....	1.10	0.20	0.80	0.90	....	....	....	....	....	....	....	....	3.00
Saddle Lake.....	0.10	0.03	0.40	....	0.15	0.85	2.08	4.94	1.35	....	....	0.40	10.30
Taber.....	....	....	0.59	0.76	0.95	2.30	0.97	1.07	1.93	0.01	0.16	0.35	9.09
Three Hills Creek.....	1.44	0.55	0.65	0.85	....	2.08	2.00	3.09	2.41	0.28	0.07	0.35	13.77
Vermilion.....	....	0.00	0.30	0.28	0.28	0.52	1.21	....	....	....	....	0.60	3.19
Wetaskiwin.....	1.83	0.98	0.76	0.23	0.79	3.83	2.17	4.12	1.80	0.49	0.10	0.87	17.97
Waitefield.....	1.02	0.33	0.83	0.50	1.60	2.21	3.31	4.26	1.91	0.37	0.06	0.67	17.07
Wabamun.....	1.31	1.16	0.74	0.44	2.18	4.52	2.71	4.20	1.28	0.44	0.18	1.20	20.36



## III.—TEMPERATURES, 1907.

STATION	January				February				March				April			
	Mean.	Max.	Date	Min.	Mean	Max.	Date	Min.	Mean	Max.	Date	Min.	Mean	Max.	Date	Min.
Alix.....	-15.4	35.0	22	-53.0	8.8	45.0	7-14	-58.0	15.2	47.0	27	-17.0	31.3	61.0	20	9.0
Banff.....	4.3	43.2	22	-48.2	21.4	46.3	22	-46.3	22.3	48.2	31	-10.8	33.0	56.3	20	3.2
Blackfalds.....	-14.3	37.0	10	-49.5	11.6	50.3	13	-53.0	15.5	44.5	24	-15.0	32.1	66.0	21	8.5
Bon Accord.....	-12.7	38.0	23	-41.0	12.8	53.0	11	-38.7	16.5	49.0	31	-13.5	29.8	59.8	20	5.4
Calgary.....	-6.3	38.0	22	-34.0	21.0	57.0	15	-40.0	22.1	58.0	31	-6.8	34.6	66.0	20	7.0
Cardston.....	-1.9	45.0	22	-32.0	25.9	55.0	17	-40.0	25.2	57.0	31	-12.0	35.9	63.0	20	...
Didsbury.....	-8.3	44.0	22	-42.0	20.0	58.0	15	-46.0	21.2	54.0	19-31	-10.0	35.3	64.0	20	16.0
Dunvegan.....	-21.3	24.0	23	-51.0	6.0	53.0	16	-53.0	12.6	44.0	19	-26.0	...	64.0	29	5.0
Edmonton.....	-12.3	39.0	23	-46.0	14.4	52.0	16	-43.0	19.6	51.0	31	-11.0	32.9	64.0	20	8.0
Fort Vermilion.....	-23.1	20.2	9	-55.8	14.5	49.0	16	-49.5	8.3	44.2	20	-30.0	25.4	52.5	19	-12.5
Gray Hill.....	-6.8	41.8	22	-36.8	19.2	57.6	11	-33.3	19.9	53.2	31	-9.0	33.0	65.5	20	9.4
Gleichen.....	-14.7	39.5	23	-51.5	10.4	46.0	14	-52.0	16.4	52.0	31	-19.0	33.9	64.0	20	12.5
Hills town.....	-11.6	37.0	9	-47.0	15.3	50.0	15	-47.0	18.1	51.0	31	-12.0	33.4	65.0	20	8.0
High River.....	-10.0	43.5	23	-42.0	16.4	53.0	17	-43.0	19.5	51.0	6	-8.0	34.0	63.0	21	2.0
Kneehill.....	-11.5	43.0	10	-56.0	12.3	51.0	15	-51.5	14.6	53.5	31	-23.5	32.6	61.0	7	9.0
Lawrence.....	-8.9	50.0	22	-46.0	16.5	50.0	7	-42.0	22.6	52.0	31	-10.0	35.9	68.0	20	...
Lethbridge.....	-1.3	44.9	23	-38.9	25.7	53.0	16	-39.2	27.9	57.9	20	-4.1	38.6	69.9	21	3.5
Lacombe.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Macleod.....	-3.8	44.0	22	-41.0	22.3	55.0	15-22	-47.0	26.3	54.0	19-31	-9.0	38.3	66.0	21	3.0
Medicine Hat.....	-8.1	36.0	23	-41.0	19.6	48.0	16	-43.0	26.4	64.0	31	-2.4	38.4	64.0	20	13.7
Pincher Creek.....	0.9	45.0	23	-35.0	18.1	50.5	15	-29.0	25.8	49.0	6-20	-0.4	...	75.0	27	...
Pakan.....	...	...	...	...	...	...	...	...	13.0	43.6	27	-20.0	28.5	57.0	20	-0.5
Peace River Crossing.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pekisko.....	-3.3	48.0	22	-37.0	22.5	55.0	22	-45.0	24.0	62.0	20	-16.0	29.0	60.0	13	-7.0
Red Willow.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	-1.0
Shaftesbury.....	...	...	...	...	...	...	...	...	...	...	...	...	37.9	70.0	29	7.0
Taber.....	-16.8	32.5	9	-56.0	10.3	49.0	15	-54.0	23.7	58.0	31	-3.0	35.6	67.0	20	12.0
Three Hills Creek.....	-12.1	32.0	10	-51.0	12.0	48.0	16	-49.0	14.2	45.0	19	-15.0	32.3	65.0	20	9.5
Wetaskiwin.....	-16.0	33.0	23	-55.0	7.6	48.5	16	-50.5	16.7	44.0	28	-20.0	31.0	60.0	22	7.0
Waitefield.....	...	...	...	...	...	...	...	...	11.6	42.0	31	-19.5	25.1	46.5	29	-2.0

TEMPERATURES, 1907—Continued.

STATION	May					June					July					August				
	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date
Alix.....	42.473.0		28	15.0	1	54.183.0		26	27.0	3	58.781.0		10	39.0	15	53.181.0		1	27.0	30
Banff.....	42.871.4		31	19.2	2	51.181.9		26	28.1	4	56.681.0		30	34.7	7	51.979.5		2	30.0	20
Blackfalds.....	41.973.5		28	14.5	2	53.480.0		26	30.0	2	57.679.3		11	37.0	21	53.580.0		3	27.0	31
Bon Accord.....	40.976.2		27	12.2	2	55.882.5		25	32.3	22	58.778.2		10	39.5	17	53.280.5		2	31.5	19
Calgary.....	44.674.0		27	16.0	3	55.080.0		25	33.3	4	60.384.0		10	40.0	8-19	55.082.0		24	31.0	28
Cardston.....	46.875.0		15	18.0	3	54.081.0		30	29.0	1	63.386.0		12	39.0	5-11	60.589.0		24	32.0	17-19
Didsbury.....	44.972.0		14-26	18.0	2-9	57.986.0		25	34.0	2	63.188.0		30	40.0	5-13-21	56.080.0		2-22	28.0	19-31
Dunvegan.....	46.082.0		27	11.0	1	55.686.0		25	30.0	2	59.080.0		26	37.0	25	55.586.0		2	32.0	10
Edmonton.....	43.676.0		27	15.0	1	57.084.0		25	35.0	4	60.681.0		10	42.0	16	55.984.0		2	31.0	19
Fort Vermilion.....	42.077.5		26	14.0	7	58.789.2		23	35.5	1	60.783.0		11	37.6	17	55.981.5		2	28.7	30
Gray Hill.....	42.574.8		27	17.7	1	55.882.8		26	33.8	2	60.482.8		10	39.1	16	55.181.0		2	32.5	18
Gleichen.....	42.476.0		14	11.5	2	55.079.5		27	30.5	4	59.585.0		30	38.0	5	56.484.5		2	28.5	19
Hillstown.....	43.276.2		28	15.0	3	56.284.5		25	32.0	4	59.783.3		10	38.6	21	54.682.0		1	28.0	31
High River.....	44.075.5		15	17.5	2	54.082.5		26	32.0	4	58.382.0		11	34.0	5	54.483.5		1	31.0	6
Kneehill.....	42.475.0		27	10.0	3	54.482.0		26	24.0	4	57.285.0		11	31.5	23	84.3		2	.....	.....
Lawrence.....	46.576.0		27	24.0	1	55.682.0		23	30.0	3	62.292.0		31	28.0	5	56.988.0		1	28.0	6
Lethbridge.....	48.779.7		15	19.3	2	58.388.6		27	35.8	4	64.389.0		31	41.3	8	30.890.6		25	36.8	17
Lacombe.....																				
Macleod.....	45.975.0		15	20.0	1	55.484.0		27	31.0	3	62.635.0		11-29	43.0	7	58.686.5		25	35.0	18
Medicine Hat.....	48.575.0		27	15.5	2	61.687.0		26	34.7	4	67.092.0		28	44.7	8	33.989.0		17	39.7	20
Pincher Creek.....																				
Pakan.....	39.977.3		27	8.0	1	54.881.9		25	28.2	3	58.579.7		30	39.0	16	54.281.1		2	31.0	31
Peace River Crossing.....																				
Pekisko.....	42.069.0		14	12.0	3	52.576.5		26	27.0	3	55.479.0		10	32.0	26	52.677.5		24	29.5	8
Red Willow.....	39.173.0		27	9.0	1	53.685.0		25	27.0	4	56.586.0		9	36.0	6-21	51.682.0		2	26.5	19
Shaftesbury.....																				
Taber.....	46.278.0		14	16.0	2	56.282.0		18	35.0	4	64.590.0		28	41.0	7-22	59.489.0		24	36.0	18
Three Hills Creek.....																				
Wetaskiwin.....	42.572.0		26	14.0	2	56.686.0		27	31.0	4	60.884.0		10	43.0	6	55.183.0		3	29.0	31
Waitefield.....	39.084.2		27	6.2	2	56.582.0		26	32.0	4	58.878.8		10	39.0	8	54.079.2		2	30.5	31





## HAIL INSURANCE, 1907.

The policy of insuring crops against hail as inaugurated by the Territorial Government in accordance with the provisions of The Hail Insurance Ordinance, has been continued, and the Treasury Department, under whose jurisdiction the Ordinance comes, has kindly furnished the following statement with reference to the amount of crop insured:

Number of contracts.....	2,934
Number of claims for indemnity.....	300

*Acreage Insured.*

Wheat.....	41,180
Oats.....	89,233
Barley.....	25,498
Flax.....	988
Speltz.....	137
Total acreage.....	157,036

Acreage fully insured.....	137,997
Acreage partly insured.....	19,039
Total.....	157,036

Amount paid for premiums at rate of 15 cts. per acre.....	\$22,241.37
Indemnity paid.....	29,734.86

*Expenses.*

Clerical services.....	\$638.75
Stamps, post cards, etc.....	193.75
Government examiners.....	1,420.80
Local examiners.....	271.21
	\$2,524.51

Estimated acreage under crop.....	700,000
Approximate proportion of total acreage under crop insured.....	4.4
Approximate average indemnity paid per acre acreage damaged.....	1.62½
Number of acres damaged.....	18,290
Percentage of insured acreage damaged.....	8 1/7

## CROP STATISTICS.

Following one of the longest and most severe winters on record came a very late spring. The general condition of the soil was good, and after a heavy snowfall there was abundant moisture in the ground, but spring plowing and seeding operations were, generally speaking, two weeks to a month late. There was plenty of rain and enough sunshine, and the crops by July were in good condition, but still a fortnight to a month late. With good weather through August and September, the prospect was not unfavourable. In August, however, there were several severe frosts and the month throughout was rather cold; and in September considerable damage was done by wind, rain and snow; so much so that in many places fields of grain were laid flat and some were left uncut. In the northern part of the province the grain in many places was too much damaged for use as seed. In the southern part, however, the snow



soon disappeared, the grain rose and was harvested in good condition and with only a small percentage of loss.

In almost every report where fall wheat is mentioned, it has been shown that when sown early in the season, such as the latter part of July or in August, it has proved to be stronger and has stood the severity of the winter much better than did the wheat sown in the months of September or October.

Unlike the year 1906 there was no damage done by cutworms and in all the reports received by the Department no mention was made of these insects having been prevalent in any part of the province.

Owing to the amount of grain frozen in the northern part of the province it would appear likely that it will be necessary to assist the farmers to get good seed for the coming year.

An increase of 136 crop correspondents over the crops of 1906, which numbered 527, has helped the department to secure very accurate reports with regard to the general agricultural conditions in the province. The crop correspondents make returns on a percentage basis of the increase in acreage brought under cultivation to any crop and also of the estimated yield. Based upon these returns two estimates were issued during the latter part of the year giving prospective yields.

The actual yields of grain are obtained from the threshers, each one being supplied with a blank book in which to enter the amounts of the various grains threshed by him for the individual farmer. In 1906 there were 531 threshers who made returns to the department. At the present time there are 630, an increase over 1906 of 99. The returns from these threshers form the basis of the final crop report giving the actual yield of grain in the province.

#### CROP DISTRICTS.

District No. 1.—Area 2,872 square miles. Cardston District. Includes country adjacent to the line of the St. Mary River Railway from Magrath to Cardston and to the Alberta Railway and Irrigation Co.'s line from Tyrell's Lake to Coutts.

District No. 2.—Area 5,220 square miles. Claresholm, Macleod, Stavely and Pincher Creek District. Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from St. Mary's westward to the Rocky Mountains, and to the Macleod Branch from Macleod north to Township 14.

District No. 3.—Area 4,878 square miles. Lethbridge, Raymond and Stirling District. Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from Bow Island westward to St. Mary. Mostly ranching country.

District No. 4.—Area 4,284 square miles. DeWinton, High River, Nanton and Okotoks District. Includes country adjacent to the Macleod Branch of the Canadian Pacific Railway from Midnapore south to Townships 15.

District No. 5.—Area 9,268 square miles. Cochrane, Calgary, Crossfield and Gleichen District. Includes country adjacent to the main line of the Canadian Pacific Railway from Langevin westward to the Rocky Mountains.

District No. 6.—Area 13,680 square miles. Medicine Hat District. Includes country adjacent to the main line of the Canadian Pacific Railway from Walsh to Langevin and extending northward to Townships 38. Almost entirely ranching country.

District No. 7.—Area 6,822 square miles. Carstairs, Didsbury and Olds District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Crossfield to Bowden, extending eastward to Range 11, west of the fourth meridian, and westward to the Rocky Mountains.

District No. 8.—Area 4,709 square miles. Bowden and Innisfail District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Bowden to Penhold.

District No. 9.—Area 2,917 square miles. Red Deer District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Penhold to Blackfalds.

District No. 10.—Area 2,412 square miles. Lacombe District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Blackfalds to Morningside and to the Lacombe Branch from Lacombe to Stettler.

District No. 11.—Area 2,750 square miles. Ponoka District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Morningside to Hobbema.

District No. 12.—Area 2,520 square miles. Wetaskiwin District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Hobbema to Millet and to the Wetaskiwin Branch from Wetaskiwin to Daysland.

District No. 13.—Area 8,388 square miles. Vermilion District. Includes country adjacent to the Canadian Northern Railway from Chipman to Lloydminster. Greater part unsettled.

District No. 14.—Area 2,250 square miles. Fort Saskatchewan, Leduc and Strathcona District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Millet to Edmonton and to the Canadian Northern Railway from Edmonton to Fort Saskatchewan.

District No. 15.—Area 2,808 square miles. St. Albert and Stony Plain District. Includes that territory bounded on the south by the North Saskatchewan River, on the north by Townships 60; extending eastward to Range 25, west of the fourth meridian and westward to Range 5, west of the fifth meridian.

District No. 16.—Area 5,184 square miles. Victoria District. Includes that territory between Townships 55 and 60 inclusive, extending eastward to the fourth meridian and westward to Range 24, west of the fourth meridian.

District No. 17.—Area 172,578 square miles. Peace River, Athabasca and Sturgeon District. A vast territory lying in the northern and northwestern portion of the Province. As yet but little is known of the agricultural possibilities of this district. A few facts are given below with respect to certain settlements which, although too vague to be included in the general statistics and not entirely relative to crops, are yet of great interest in that they indicate some of the possibilities of this great tract of territory. The crops reported are also stated to be below the average this year in volume and yield. Owing to the great distance from any railroad, the market for all the produce of this northern district is at present local, but as the several projected railway lines into this district are built, the country will undoubtedly become rapidly settled.

Fort Vermilion (Lat. N. 58 degrees 24 minutes, Long. 116 degrees 0 minutes), is about 350 miles north of Edmonton and 100 miles from the northern boundary of the Province. The settlement in this district extends about 25 miles along the Peace River and is 4 or 5 miles in width. It has about 300 head of horses and 500 head of cattle owned by sixty farmers and ranchers. In 1905 six or seven thousand bushels of wheat were grown and about three thousand bushels of barley. A good vegetable crop is also reported. There are four mills, one of which is a large roller mill, the other three being small grist mills.

Peace River Crossing (near T. 83 R. 21, west 5th meridian). This district, which is about 15 miles long and a little more than two miles in width, has about 150 head of horses and the same number of cattle. The reported crop for 1905 is about 3,000 bushels of wheat and 1,500 bushels of oats. There are two small grist mills.

Spirit River.—This district is about 15 miles square and has from 250 to 275 head of cattle and from 300 to 400 head of horses. The crop in this district totalled about 1,000 bushels of wheat and 1,000 bushels of oats, while the vegetable crop is also stated to be good.

Grand Prairie.—It is reported that in this settlement there are about 200 head of cattle and a large number of horses.

Below will be found tables showing the acreage sown to the various grains, the yield per acre and the average yield for the past three years; following this is a table showing the average yields of the leading grains for the past 10 years:



## CROP STATISTICS.

	SPRING WHEAT				WINTER WHEAT				OATS				BARLEY			
	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield
1. 1905	33,713	2,073	16.26	20.12	199,841	11,922	16.76	23.59	121,896	4,082	29.86	37.47	14,510	565	25.68	28.15
1906	97,503	4,189	23.27		164,999	6,771	24.36		353,145	7,552	46.76		44,538	1,208	36.86	
1907	110,933	5,355	20.71		377,520	12,729	29.65		316,461	8,842	35.79		14,295	652	21.92	
2. 1905	281,780	13,998	20.13	22.30	249,939	9,566	26.12	24.32	450,063	13,068	34.44	35.18	26,060	1,089	34.44	26.62
1906	624,754	23,992	26.04		563,590	24,355	23.14		1,114,447	29,232	38.12		61,512	2,436	25.25	
1907	897,433	43,236	20.75		595,261	25,094	23.72		617,478	18,707	33.00		30,135	1,493	20.19	
3. 1905	76,647	8,128	9.43	17.18	46,224	4,190	11.03	17.76	77,266	3,688	20.95	31.12	4,079	273	14.94	21.45
1906	202,444	9,280	21.79		129,459	7,745	16.71		303,437	8,313	36.50		16,913	602	28.09	
1907	255,215	11,956	21.34		123,067	4,817	25.54		194,415	5,412	35.92		8,875	416	21.33	
4. 1905	51,031	1,783	28.62	23.60	99,042	3,006	32.94	21.78	1,110,902	22,545	49.27	40.68	99,259	3,266	30.39	29.34
1906	82,727	3,611	22.90		174,457	12,413	14.05		2,132,463	49,525	41.03		163,718	5,207	31.44	
1907	137,740	7,139	19.29		444,507	24,217	18.35		950,096	29,928	31.74		87,774	3,470	25.29	
5. 1905	26,900	793	33.92	28.43	21,599	671	32.18	24.72	477,221	10,991	43.41	39.23	58,308	1,821	32.01	26.27
1906	25,341	1,057	23.97		38,879	1,474	26.37		687,487	15,142	45.40		75,513	2,607	28.96	
1907	19,687	718	27.41		54,355	3,478	15.62		412,870	14,288	28.89		41,321	2,313	17.86	
6. 1905	60,876	3,834	15.87	15.19	1,902	94	20.23	26.13	162,338	4,970	32.86	27.73	21,974	822	26.73	22.37
1906	145,946	7,876	18.53		2,762	67	41.22		135,462	4,538	29.85		19,774	816	24.23	
1907	76,300	6,826	11.17		17,575	1,036	16.96		89,185	4,308	20.70		9,174	567	16.17	
7. 1905	13,172	542	24.30	23.54	31,348	1,110	28.24	28.92	594,770	14,944	39.79	34.81	181,198	6,216	29.15	25.47
1906	66,556	3,082	21.59		168,791	6,349	26.58		965,423	26,719	36.13		238,433	8,484	28.10	
1907	19,533	790	24.73		174,136	5,449	31.95		815,982	28,611	28.51		104,029	5,425	19.17	
8. 1905	20,942	910	23.01	17.17	573	22	26.04	20.82	396,688	9,639	41.15	35.94	107,321	3,332	32.20	27.09
1906	34,347	2,209	15.54		8,600	312	27.56		423,977	9,977	42.49		108,006	3,602	29.98	
1907	4,714	364	12.96		8,046	908	8.86		271,620	11,224	24.20		43,683	2,287	19.10	

9.	1905	11,309	446	25.35	21.13	4,700	172	27.32	25.96	387,533	10,078	38.45	36.18	85,253	3,030	28.13	27.40
	1906	28,533	1,253	22.78		18,581	663	28.02		469,638	11,820	39.73		90,438	2,851	31.72	
	1907	28,761	1,889	15.26		29,898	1,325	22.56		291,067	9,584	30.37		38,546	1,728	22.36	
10.	1905	27,431	948	28.93		2,954	118	25.03		791,211	20,247	39.07		120,438	4,083	29.49	
	1906	48,784	2,432	20.05	22.24	3,544	147	24.10	24.31	641,577	17,860	35.92	34.84	104,813	3,537	39.63	31.02
	1907	76,245	4,269	17.86		15,372	645	23.82		609,861	20,652	29.53		59,973	2,753	23.96	
11.	1905	85,789	3,238	26.49		1,110	46	24.11		650,838	15,171	40.90		154,646	5,518	28.02	
	1906	171,197	7,258	23.58	22.28	952	36	26.44	26.99	886,338	24,497	36.18		168,982	6,455	26.17	24.86
	1907	120,330	7,174	16.77		15,142	498	30.42		662,844	20,783	31.89		75,566	3,705	20.39	
12.	1905	144,755	5,355	27.03		196	10	19.60		1,129,417	26,839	42.08		184,502	6,030	30.50	
	1906	141,382	6,758	22.40	21.70	6,104	296	20.62	19.98	1,075,035	39,937	34.74	35.31	148,971	5,719	26.04	25.19
	1907	80,918	5,156	15.69		5,083	272	18.72		850,750	29,223	29.11		99,464	5,225	19.03	
13.	1905	73,963	3,010	24.57		4,203	207	20.31		533,810	13,145	40.60		91,711	3,504	26.15	
	1906	186,492	7,147	26.09	21.64	2,552	129	19.78	18.58	720,863	17,853	40.37	36.75	95,907	3,328	28.81	24.99
	1907	120,649	8,458	14.26		5,778	369	15.67		694,083	22,154	29.29		78,303	3,912	20.01	
14.	1905	256,439	10,435	24.57		3,289	127	25.89		1,126,229	31,327	35.95		260,675	10,538	24.73	
	1906	338,195	13,825	24.46	21.21	270	10	27.00	26.97	1,664,594	42,783	38.90	36.11	402,289	12,978	30.97	24.85
	1907	115,828	7,925	14.61		11,857	423	28.04		1,245,581	37,195	33.48		190,188	10,080	18.86	
15.	1905	154,595	7,660	20.18		8,426	365	23.08		469,231	13,665	34.33		125,191	5,107	24.51	
	1906	267,426	13,144	20.34	18.34	5,157	230	22.42	21.19	862,665	21,697	39.75	33.49	212,835	7,195	29.58	24.04
	1907	55,931	3,855	14.50		5,115	283	18.07		462,660	17,525	26.40		68,657	3,805	18.04	
16.	1905	298,163	12,200	24.43		14,670	548	26.77		1,034,767	28,402	36.43		238,789	9,636	24.78	
	1906	185,181	7,561	24.49	21.44	233	19	12.26	19.83	678,894	16,881	40.21	35.04	194,428	6,333	30.77	24.67
	1907	99,145	6,434	15.40		2,129	104	20.47		647,924	22,744	28.48		110,466	5,979	18.47	
17.	1905	.....	.....	.....		.....	.....	.....		.....	.....	.....		.....	.....	.....	
	1906	17,887	822	21.76	22.30	12,429	619	20.07	18.03	21,468	402	53.40	39.42	10,887	230	47.33	41.01
	1907	27,966	1,224	22.84		80	5	16.00		38,483	1,512	25.45		9,301	268	34.70	





9.....	1905 1906 1907	756 1,590	43 86	17.58 18.59	18.08	215 1,056 534	11 154 140	19.54 6.85 3.81	10.06	136 15 312	7 1 13	19.42 15.00 24.00	19.47
10.....	1905 1906 1907	618 2,494	30 101	20.60 24.81	22.70	1,127 984 2,730	52 230 524	21.67 4.27 5.20	10.38	95 516 1,082	3 12 45	31.66 43.00 24.04	32.90
11.....	1905 1906 1907	10,081 3,279	397 153	25.39 21.50	23.44	530 2,207 722	47 274 167	11.27 8.54 4.32	8.04	899 481 117	28 29 14	32.10 16.58 8.35	19.01
12.....	1905 1906 1907	1,541 140	57 10	27.03 14.00	20.51	687 501 256	56 54 65	12.26 9.27 3.95	8.49	723 1,383 313	36 42 8	20.08 32.92 39.12	30.70
13.....	1905 1906 1907	960 26	142 3	67.60 10.40	39.00	401 1,180 780	25 112 123	16.04 10.53 6.34	10.97	220 1,558 268	5 47 13	44.00 33.10 20.61	32.57
14.....	1905 1906 1907	1,087	40	27.17	27.17	144 48	8 3	18.00 16.00	17.00	82 192	2 4	41.00 48.00	45.66
15.....	1905 1906 1907	58	13	4.37	4.37	56	7	8.00	8.00				
16.....	1905 1906 1907	1,380	70	19.71	19.71	49 144	2 8	24.50 18.00	21.25	495 369	32 17	15.46 21.70	17.63



## SUMMARY of the Acreage and Yields of the Leading Grains in Alberta during the last 10 years.

	Year	Crop area in acres	Total yields in bushels	Average yield per acre	Average yield
Spring Wheat	1907	123,935	2,261,610	18.25	20.96
	1906	115,502	2,664,661	23.07	
	1905	75,353	1,617,505	21.46	
	1904	47,411	786,075	16.58	
	1903	59,951	1,118,180	18.65	
	1902	45,064	850,122	18.86	
	1901	34,890	857,714	24.58	
	1900	30,361	583,806	19.22	
	1899	35,090	833,123	23.74	
	1898	31,348	792,417	25.27	
Winter Wheat	1907	83,965	1,932,925	20.66	21.09
	1906	61,625	1,301,359	21.11	
	1905	32,174	689,019	21.41	
	1904	8,296	152,125	18.33	
	1903	3,440	82,418	23.95	
Oats.....	1907	307,093	9,247,914	30.11	36.43
	1906	335,728	13,136,913	39.12	
	1905	242,801	9,514,180	39.18	
	1904	180,698	5,609,496	31.04	
	1903	162,314	5,187,511	31.95	
	1902	118,997	3,776,976	31.74	
	1901	104,533	4,253,284	40.68	
	1900	77,616	2,625,581	33.82	
	1899	51,929	2,189,441	42.16	
Barley.....	1898	38,964	1,734,197	44.50	25.63
	1907	54,698	1,082,460	19.78	
	1906	73,588	2,157,957	29.32	
	1905	64,830	1,773,914	27.36	
	1904	61,549	1,608,241	26.12	
	1903	42,219	1,077,274	25.51	
	1902	22,201	473,108	21.31	
	1901	13,483	442,381	32.81	
	1900	9,256	234,971	25.37	
	1899	6,655	178,395	26.80	
Flax.....	1898	8,742	279,826	32.00	11.27
	1907	6,488	50,002	7.87	
	1906	3,647	38,491	10.65	
	1905	581	8,337	14.34	
	1904	367	5,003	13.63	
	1903	830	7,753	9.34	
Speltz.....	1902	373	4,476	12.00	24.58
	1907	151	3,346	22.15	
	1906	385	11,423	29.67	
	1905	178	4,419	24.82	
	1904	112	2,426	21.66	
Rye.....	1907	591	10,595	17.91	18.80
	1906	1,139	22,462	19.70	

Total crop area, 1907, 576,821 acres.

Total crop area, 1906, 591,614 acres.

Total crop area, 1905, 415,917 acres.

Total crop area, 1904, 298,433 acres.

NOTE.—All yields shown are from threshers' measure and not by weight.

## HARVEST HELP.

The promise of a very abundant crop aroused anxiety in many districts as to there being sufficient help available to take off the harvest. The department accordingly sent out enquiries in all directions to ascertain the amount that would be needed from outside points. It was ascertained that something over 2,500 hands were wanted. The matter was taken up with the C.P.R. authorities at Winnipeg and arrangements were made to ticket a sufficient number of harvest hands to Alberta points to ensure a safe harvesting of the crop.

The method followed is for the harvester to purchase a ticket to Winnipeg. When he arrives there he decides where he is going to go to and asks for a ticket to that point. Free tickets are given on presentation of the identification portion of the going ticket to Winnipeg to all points as far west as Moose Jaw. This is the arrangement that has existed for years. The new arrangement for those desirous of going to Alberta was to go to Moose Jaw and there purchase a new ticket to the point of destination at a rate of one cent a mile. On the completion of at least one month's labour a return ticket to Moose Jaw would be given at a rate of one cent a mile. It was not thought advisable to issue free tickets to Alberta points from Winnipeg, as then most of the harvesters would have taken tickets to Alberta as there seems to be a strong desire on the part of the average harvester to go as far as he can obtain a ticket before looking for work.

The department also sent a representative to Winnipeg to see that the province should get its fair quota of men, also to prevent a larger number going to any one point than was necessary to meet the demand. Through the press it was made widely known that these arrangements had been made and that the harvest helpers would purchase tickets to those stations where help was needed but that farmers would have to make arrangements to secure the help they needed. It was suggested that they should leave their names and locations with their nearest railway agent or arrange with friends in town to secure and send out to them the help that they would need. Mr. K. Forbes Reid was sent to Winnipeg as the representative of the department and was very successful in his efforts in securing sufficient help. His report is as follows:

"In compliance with your instructions I left Edmonton for Winnipeg on August 29th to meet the different harvest excursions from the east and to endeavour to procure for points in Alberta an estimated number of twenty-five hundred men.

"I met the different trains on their arrival and attached to this report you will find a summary of how the help was distributed. I sought to distribute the men as equally as possible, but you will note that some points received many times the number asked for, while others only got about half and in some cases none at all. This is accounted for by the fact that many of the harvesters wanted to go to the larger centres, in fact, had made up their minds to this effect before leaving home; others had friends at different points to whom they wished to go, and it is only the class having no definite point in view that one can succeed in directing to the smaller places.

"Much disappointment was expressed by the provincial immigration officials at Winnipeg at the small number of harvesters who came west this season. Manitoba's requirements alone were fifteen thousand (15,000), Saskatchewan five thousand (5,000) and Alberta twenty-five hundred (2,500).

"The total number to arrive at Winnipeg was ten thousand eight hundred and twenty-two (10,822),—eight hundred (800) of this number being women. About one thousand (1,000) were home-seekers and not harvesters, and a number taking advantage of the cheap rate were going to work in the coal mines of Southern Alberta. This left not more than nine thousand (9,000) for the harvest fields of the three provinces. As the subjoined statement shows some twenty-three



hundred and seventy-two (2,372) ticketed to Alberta points. It will be seen that the province received more than a fair proportion of the number available as compared with the number required in the other provinces. I do not take all the credit for this, as numbers left the east to locate permanently in Alberta while others desired to get as far west as their ticket called for,—namely, Moose Jaw,—and the rate from that point being only one (1) cent per mile it cost but a trifle to go to any point in Alberta.”

Harvesters ticketed on different railways' lines as follows, September, 1907:

	SEPTEMBER								Total
	1	4	6	11	12	15	19	21	
A. R. & I. Ry. ....	35	41	19	12	18	..	..	..	125
Crow's Nest Railway. ....	253	93	134	95	77	30	20	30	732
C.P.R. McLeod to Calgary. ....	17	47	115	23	23	17	25	..	267
C.P.R. Main Line. ....	263	60	74	40	36	26	16	..	515
C.P.R. Calgary to Edmonton. ....	17	33	42	94	37	15	23	54	315
Lacombe Branch. ....	3	..	..	3	..	4	..	..	10
Wetaskiwin Branch. ....	1	..	..	13	..	10	3	..	27
C. N. Ry. ....	18	42	83	125	30	38	27	18	381
									2,372

#### IRRIGATION.

In the early part of the summer season the department had under consideration the appointment of a competent instructor in irrigation to hold meetings throughout the districts served by irrigation ditches and to advise with farmers on the best methods of using water. Some difficulty was experienced in securing the services of a suitable man, but at last Mr. D. E. Harris, Sr., of Cardston, was selected for this purpose. He is thoroughly posted on the subject and a capable farmer in this country as well. The following list of meetings was held by him:

Magrath. .... July 26th and 27th.  
 Raymond. .... July 29th and 30th.  
 Stirling. .... July 31st and August 1st.  
 Taber. .... August 2nd and 3rd.  
 Lethbridge. .... August 5th and 6th.

Meetings were held the first day and the evening of the second day, while the balance of the second day was spent in field work at each place demonstrating how water should be handled. In his addresses Mr. Harris discussed the principle underlying irrigation under the following headings:

The Function of Water in Plant Growth.  
 The Movement of Water in the Soil.  
 The Advantages of Irrigation in Maintaining Proper  
 Moisture Relations in the Soil.  
 The Duty of Water.  
 The Preparation of Land for Irrigation (a) Land, (b) Ditches.  
 The Method of Applying Water.  
 The Treatment of Land after Irrigation.

Opportunity was given at the close of each address to ask questions and effort made to bring out discussion. Besides the meetings arranged for above it was the intention to hold another series along the ditch east of Calgary. Owing, however, to the long-drawn-out harvest the idea was abandoned.

During the year the first irrigation convention of western Canada was held in Calgary in July 17 and 18. This meeting brought a good many interested people together and many valuable papers were read. The result was the formation of the Western Canada Irrigation Association which, it is hoped, will do much to gather together those interested in irrigation in a strong association working for the general advancement of irrigation.

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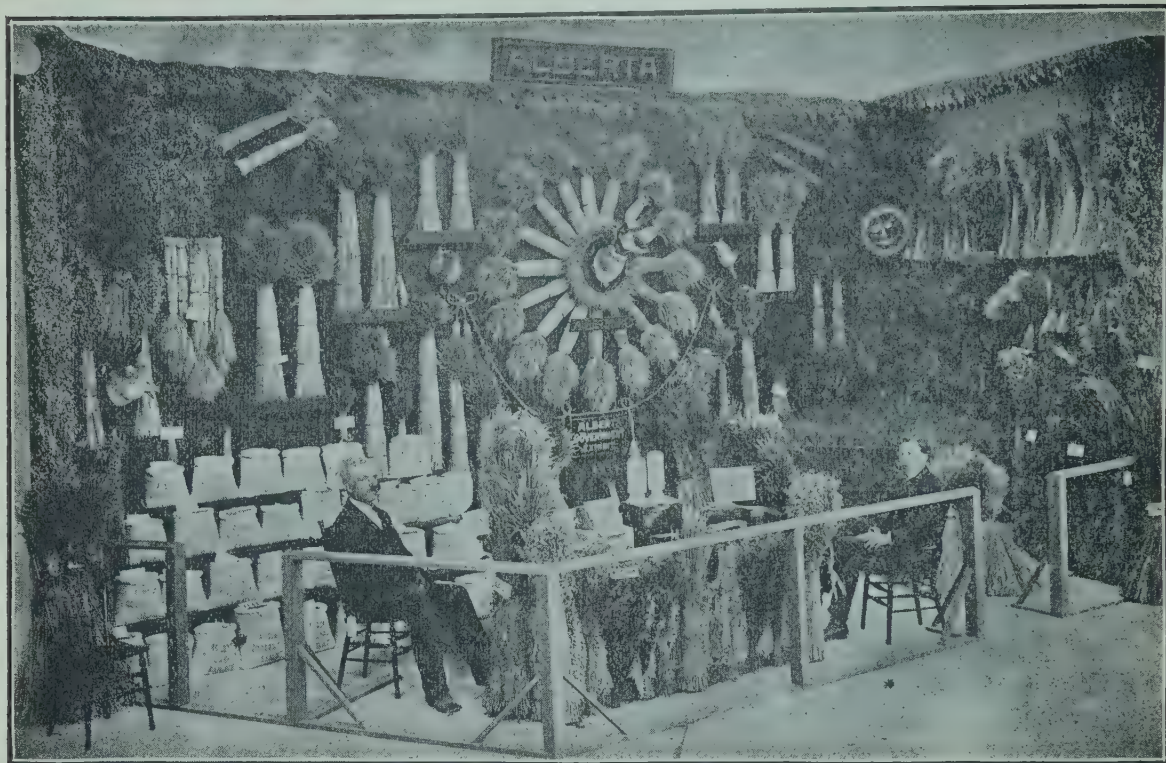
#### IV.—IMMIGRATION AND COLONIZATION.

The Federal Government in the pursuance of its vigorous immigration policy has placed agents in all countries whence it is desirable to draw population to the Dominion. It is unnecessary for Alberta to duplicate these since the advantages offered by this province are in this way already being widely made known. This is evident since not only from older parts of the Dominion, but from many points in United States, Great Britain and other lands, enquiries have reached the department for detailed information respecting the resources, climate and opportunities offered by this province,—particularly as regards farm, life. To meet these numerous enquiries it was decided to issue a hand-book of Alberta, setting forth its climate, healthfulness, government, educational facilities, fertility of the soil, natural resources and general opportunities which could be mailed to all those looking to new lands. This was done, and in August 15,000 copies were received from the press. So great was the demand that at the end of the year the number was practically exhausted and the department finds it now necessary to issue a second edition.

An excellent exhibit of the natural resources of the province was made by the department at the exhibition at London, Ontario, and the Canadian National Exhibition at Toronto, in the fall of the year, under the management of Mr. E. L. Richardson, of Calgary, assisted by Mr. Frank Peterson, of Noelton, and Mr. D. W. Warner, of Edmonton. The grains in sheaf and sack, the grasses and other parts of the exhibit were arranged very artistically and greatly admired. In consequence, enquiries for information with regard to the province were enormous. As the hand-book was too valuable for free distribution to everyone asking for it a register was kept at both exhibitions of the names of those who wished literature about Alberta and to these the Official Hand-Book was sent. Copies of these names were struck off and sent to the boards of trade of the province, so that each of these may add any information respecting the special advantages of their own districts.

A unique scheme of advertising was adopted instead of giving away the hand-book. This was a post card having a photo of the exhibit on one side and a short letter on the other descriptive of it. The intention was for the visitor to address this card to his home folks. The idea caught on and over 30,000 of these cards were distributed. Examination of the pavilion in which the exhibit was placed failed to show that any of these cards had been thrown away. The same was true of the grounds generally. Below will be found a photo of the exhibit at Toronto and a copy of the reading matter on the reverse side of the card.





PHOTOGRAVURE OF THE PROVINCIAL EXHIBIT AT THE CANADIAN NATIONAL EXHIBITION AT TORONTO.

Dear Folks

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I have just seen the Alberta Government exhibit at the Fair. Say! they must have a great Province. Wheat goes as high as 60 bushel to the acre and from 30 to 40 is common. Oats yields from 40 to 100 bushel, and Barley from 30 to 40 bushel. You should see the grand display of native and tame Grasses and also Clovers and Alfalfa. Vegetables do well there! The climate is ideal for health. Coal is found in all parts of the Province. Coal oil and natural gas are also found there.

If you are interested write to the Department of Agriculture, Edmonton, or the Secretary of any Alberta Board of Trade for literature.

With kind regards from  
Yours sincerely

**PRIVATE**  
**POST CARD**



PLACE  
1c. STAMP  
HERE

THIS SPACE FOR ADDRESS

After the close of the London Fair the above exhibit was shipped back to Calgary, and there under the direction of Mr. E. L. Richardson is being enlarged and completed for use at the Dominion Exhibition at that point in 1908.

## V.—MUSEUM.

Alberta is particularly rich in those things which go to make a general museum, and an effort should be made in the early years of the province to secure those relics which link the present with the past. They are being picked up continuously by curio hunters and by agents of the leading American museums. Each year reduces the opportunity for obtaining these things once a museum is started here. This is only one aspect of the situation, however, with the steady increase in settlement wild animals are killed, driven from their natural haunts and are liable at any time to be exterminated, thus rendering it much more difficult and expensive if not almost impossible to obtain fine specimens for museum purposes. The same applies to the wild birds for their nests are robbed, the birds themselves shot and killed, and their natural breeding grounds destroyed by the incoming settler. What has been said about animals and birds is equally true with regard to the varieties of fish to be found in the waters of the numerous lakes throughout the province.

Early in the year it was brought to the attention of the department that the Department of Marine and Fisheries at Ottawa was desirous of co-operating with the province in making a duplicate collection of the varieties of fish inhabiting the waters of the lakes of Alberta. As no attempt had hitherto been made to ascertain the number, variety, or any other particulars about the fish life abounding in the lakes of the province, and as it would also present excellent opportunity for obtaining a collection for a future museum, it was decided to co-operate with the Federal authorities in this work. Arrangements accordingly were made and later in the year Mr. Andrew Halkett, naturalist and curator of the Fisheries Museum, Ottawa, spent a month in the province collecting fish and observing bird and animal life. Owing to the fact that there are at least one hundred lakes worthy of examination it was deemed advisable to make collections from only a few of the more accessible ones near Edmonton. The following is the report made by Mr. Halkett on his work:

## REPORT OF THE NATURALIST AND CURATOR OF THE FISHERIES MUSEUM ON ALBERTA LAKES.

In accordance with a letter received from the Deputy Minister of Marine and Fisheries directing me to make a collection of fishes indigenous to the Provinces of Alberta and Saskatchewan the following is a report in so far as the collecting in the Province of Alberta is concerned:

Before starting to collect I first of all took a general survey of the field, and realizing the vastness of the area determined that the most practical way of gaining some knowledge of what the waters of the two new provinces contained was to select certain local districts and as thoroughly as possible work those over for the season, leaving it to the discretion of the department whether or not the work should be subsequently followed up. For Alberta, Beaver, Hastings and Cooking lakes were therefore selected, and as thoroughly as possible worked over with the result that a nucleus collection of the fishes inhabiting them was made. This collection was securely soldered up in one of the copper Agassiz collecting tanks, and stored in the temporary Provincial Government buildings at Edmonton, until suitable quarters are available for placing it on permanent exhibition. It may be here said that the above mentioned lakes are situated to the east of the city of Edmonton, whilst those of the valley of the Qu'Appelle, where the collection for Saskatchewan was made, are considerably further south and east. It seemed advisable to select the districts of the two provinces well apart from each other as to altitude and longitude so that a comparison of the fishes found to indwell the waters of the two might be made, and when this was done certain were found to be indigenous to both localities,—an indirect evidence that such kinds had a wide distribution over both provinces.



At the same time the aforesaid lakes did not prove to be so rich in species as did those of the Qu'Appelle valley. This does not mean that when the fishes of the province as a whole are known that they will not prove to be equally rich in species. Indeed the physical features of Alberta being far more varied than are those of Saskatchewan the implication is that, when the fishes indwelling the streams and lakes of the mountainous regions as well as those indigenous to the lakes of the more level or prairie parts are thoroughly known, the waters of the province will prove to be indwelt with a multitude of kinds.

The fishes, of which specimens were procured, inhabiting Beaver, Hastings and Cooking Lakes embrace pike, suckers and other cyprinoids, ling and sticklebacks; and besides fishes, in the surrounding districts, specimens of small mammals (two rodents and a shrew), batrachians, leeches, insects, &c., were also collected.

Beaver Lake is a regular haunt of various birds, different kinds of which were sometimes to be seen congregated together. Among those observed were curlews and other shore birds, great flocks of gulls and of terns, innumerable kinds of ducks, and white pelicans; and in the net set for fishes a young grebe was caught which afterwards escaped. During the summer months, in fact Beaver Lake is simply alive with innumerable water birds, but owing to the inroads of civilization this remarkable phenomenon, still at its height, of the natural wilds, will undoubtedly shortly be changed. Towns are springing up, and the birds, just as soon as they become affected through the entrance of man will disappear to betake themselves to more congenial haunts still further north. It was to be regretted that when the place was visited, late in July and early in August, the nesting season was then over, so that no eggs were found, and this the more so owing to the change just pointed out which will inevitably come over this phase of bird life in the near future.

Among other birds observed were a few owls, which were generally perched on trees, and being nocturnal birds were seen at dusk; and a few night-hawks, seen one evening at an inland place. An interesting thing observed concerns the flicker (*Colaptes*). This woodpecker, in the wooded parts of Alberta visited, was seen to perch on trees, a thing surely unique among woodpeckers. Near Hastings Lake, early in August, a nest of the blue-winged teal, containing eight eggs, was found. This was of course very late in the season for the bird to be nesting, and the eggs were highly incubated, and almost ready to hatch.

Having an opportunity to visit the park in Alberta where the recently acquired herd of buffalo has been introduced I saw about thirty of the bulls herding by themselves, but the park was too extensive to devote the time to go over the whole of it. They were massive animals, but whether owing to their transportation or because the environment did not suit them, the most of them appeared to be in poor condition. I also saw tracks of the escaped bull, of which so much appeared in the newspapers, along the shores of Beaver Lake.

Before concluding this report it may be pointed out that whilst knowledge of the general faunal conditions of Alberta is as yet a desideratum, the very varied physical features of the province, already alluded to in treating of its fishes, indicate a corresponding variety of faunal forms. Nor is this judged of merely by the province's topographical contrasts, but in measure also by what was actually observed, in a direct way, of the creatures themselves. The eyes of the scientific world, anticipatively, always become turned to a new field for zoological research. The Province of Alberta is such a field, and if patient and systematic research were devoted to its problems of natural history, many important and as yet undiscovered facts would without doubt ultimately become known. But as matters stand just now a great deal cannot be done in this respect. The Province of Saskatchewan is in advance of that of Alberta in having a repository for specimens collected. It has, in other words, a small and attractive museum, open to the public, and embracing a nucleus collection of the mammals, birds, insects, etc., of the province; and the growth and expansion of this institution is only a question of time subject of jurisdiction, and dependent on more spacious accommodation and the addition of specimens.

Alberta, on the other hand, having no such institution, and no facilities for the accommodation of even a nucleus collection, I submit, that before any adequate conception can be had of that which pertains to the natural history of the province suitable provision for present exigencies is necessary.

ANDREW HALKETT,  
Naturalist Department Marine and Fisheries.

## VI.—REPORT OF FRUIT EXPERIMENTS.

There have been two new orchards prepared this year, one at Vegreville and the other at Kitscoty, both on the Canadian Northern Railway. At these places the land has been prepared for planting and the first consignment of trees has been heeled in this fall. This consignment will be duplicated in the spring of 1908 in order to determine whether fall or spring shipment is the better. The following is a report on the work of the stations by Mr. Arch. Mitchell:

### REPORT ON THE FRUIT EXPERIMENT STATIONS.

The trees obtained last fall and this spring for the older plantations were planted as intended and I am pleased to be able to report that something of value to the province has already been learned. One of these is that some nursery companies do not pack their trees well enough for them to be carried in safety from far away points such as Ontario or Minnesota. They do not pack them in a sufficient quantity of moisture-retaining material and long before they reach Alberta the roots and tops of the trees are quite dry and very often cannot be saved even with the most careful attention. This was pointed out to the various offending firms and this fall a very great improvement has been marked in the manner in which consignments have been shipped. The shipments from A. P. Stevenson, of Nelson, Manitoba, I am pleased to report were excellently packed and surrounded by a substantial layer of moist sphagnum moss, which was again wrapped in paper to exclude the drying effects of the air, and the whole neatly and carefully enclosed in burlap.

Another item of interest to the future fruit growers of the province is that some nurserymen do not seem to think it necessary to adhere strictly to the order of the purchaser, but, when out of any particular tree, will substitute for it another variety which may or may not be suitable or desirable and they do not always furnish explanation voluntarily. This is very unfortunate and has already interfered with the uniformity of the experiments being conducted by the department, and it is to be hoped the attention of nurserymen catering for the requirements of Alberta will be drawn to this feature of their trade.

A third point that has been learned is that certain trees are hardier than others. The year 1907 was an exceptionally hard one on fruit trees especially newly planted ones, as the snow storm of the second week in September found most of the trees still in leaf and their young shoots and bark all unprepared for the winter. Many of the young shoots were frozen and yet here and there were found one or two quite untouched or only very slightly so by the frost. This is very satisfactory and these trees should be given special attention in the future. I do not think it right to publish the names of these till further experience is gained and more is known about them.

All of the orchards were examined late in the fall, and notes taken as to the condition of each tree, all of which are placed on file for future reference. All the orchards except one were found to have been well cared for; the exceptional one had not been fenced and the trees in it had been more or less damaged by stock. It was, therefore, considered right to withhold a portion of the remuneration allowed for carrying on the work in that particular case. The total amount expended on the fruit experiments was \$297.45.

This fall a number of the trees in each orchard have been partially uprooted and the whole tops and branches completely buried over winter. It is the intention to have them replanted in the spring and this will be repeated for two or more winters. The object of this experiment lies in the fact that in some parts of the west it has been found that some varieties of trees are severely winter killed the first two or three years, afterwards becoming quite hardy and suffering very little or none at all from winter killing. The theory is that this immunity from frost hurt is acquired after several layers of native wood have been deposited on them and it is hoped that the burying of the trees over winter will shelter them for a few years till a sufficient quantity of native grown wood has been produced, and that when they are at length left unsheltered they may be hardy enough to withstand the severe weather.

There are now nine experimental orchards under the auspices of the department, as follows:

Medicine Hat	under the care of	Thomas Littleford.
Magrath	" "	J. B. Merrill.
Leavings	" "	J. G. Vosburgh.
De Winton	" "	Alex. Blackwood.
Didsbury	" "	Samuel Troyer.



Wetaskiwin	under the care of	Joseph Kapler.
Clover Bar	" "	W. F. Wilkinson.
Vegreville	" "	H. T. Payne.
Kitscoty	" "	A. S. Thresher.

ARCH. MITCHELL,  
*In Charge of Fruit Experiments.*

## VII.—VITAL STATISTICS.

The indexing and rearranging of the vital statistics records began in the spring of last year proved to be a very extensive work, and was completed only after several months of the present year had elapsed. The records are now in excellent order and easy of access for the searches that may at any moment need to be made.

Hitherto the province has been divided into fourteen districts with a registrar for each. These districts have been found very much too large to secure full returns, and with the rapidly increasing population it was felt certain that the results would be still less satisfactory. The department, therefore, arranged to have the old Territorial Ordinance revised and accordingly a new Act was passed at the 1907 session of the Legislature providing for the appointment of a large number of registrars throughout the province. Under the Dominion postal laws, postmasters are required to keep the forms for registration of births, marriages and deaths, and to hand out the same on application. It was thought, therefore, that the postmasters should be made registrars as far as it was possible to do as they would be the best parties to see that every event in their neighbourhood was registered, and especially so as they are paid a fee of twenty-five cents for each correct return sent to the department. It would also be very much simpler for the department to advertise the registrars if they were uniformly the postmasters. This has been done pretty generally all through here, and where a postmaster refused to have anything to do with the returns for one reason and another, another appointment has been made. In the case of postmasters in the cities under a regular monthly salary from the Post Office Department, it was found necessary to appoint other registrars. In these places the former registrars have been retained.

All the necessary forms and registers have been secured and arrangements made to have the registrars take up their duties. The department believes that henceforth very full and accurate returns of the vital statistics of the province will thus be obtained.

During the year fifty-five certified extracts and twenty searches of the vital statistics records were made in accordance with the provisions of Section 30 of The Vital Statistics Records Act.

The following are the usual tables:

	BIRTHS	MARRIAGES	DEATHS	TOTAL
January.....	320	132	138	.....
February.....	324	113	100	.....
March.....	386	94	127	.....
April.....	468	197	165	.....
May.....	374	146	133	.....
June.....	444	195	125	.....
July.....	368	189	115	.....
August.....	377	174	141	.....
September.....	367	153	86	.....
October.....	336	143	141	.....
November.....	425	165	153	.....
December.....	543	216	154	.....
	4,732	1,907	1,578	8,217

NUMBER OF REGISTRATIONS RECEIVED AT DIFFERENT REGISTRATION DIVISIONS.

	BIRTHS	MARRIAGES	DEATHS
Banff.....	102	42	19
Calgary.....	884	513	465
Cardston.....	86	14	10
Edmonton.....	462	256	144
High River.....	116	63	36
Innisfail.....	183	45	54
Lacombe.....	401	165	103
Lethbridge.....	280	91	78
Macleod.....	266	147	109
Medicine Hat.....	280	95	110
St. Albert.....	194	42	65
Strathcona.....	458	140	142
Wetaskiwin.....	471	148	134
Victoria.....	570	134	100

MARRIAGES BY MONTHS, 1907.

January.....	120
February.....	143
March.....	106
April.....	151
May.....	146
June.....	213
July.....	190
August.....	155
September.....	162
October.....	157
November.....	169
December.....	159

Total..... 1,871

MEAN MARRIAGE AGE.

YEAR	MALE	FEMALE	YEAR	MALE	FEMALE
1902	27.10	22.88	1905	28.34	23.06
1903	28.31	22.98	1906	28.82	22.59
1904	28.53	23.41	1907	27.45	23.98



BIRTHS BY DISTRICTS, 1907.

DISTRICT	MALE	FEMALE	TOTAL
Banff.....	52	37	89
Calgary.....	456	396	852
Cardston.....	39	23	62
Edmonton.....	213	195	108
High River.....	54	59	113
Innisfail.....	87	88	175
Lacombe.....	157	182	339
Lethbridge.....	145	119	264
Macleod.....	132	119	251
Medicine Hat.....	124	144	268
St. Albert.....	80	59	139
Strathcona.....	229	202	431
Wetaskiwin.....	212	199	411
Victoria.....	268	268	536
Totals.....	2,248	2,090	4,338

BIRTHS BY MONTHS, 1907.

MONTH	MALE	FEMALE	TOTAL
January.....	189	180	369
February.....	179	149	328
March.....	206	183	389
April.....	202	200	402
May.....	211	177	388
June.....	168	151	319
July.....	192	169	361
August.....	195	218	413
September.....	200	170	370
October.....	196	192	388
November.....	180	161	341
December.....	130	140	270
	2,248	2,090	4,338

	BIRTHS			MARRIAGES	DEATHS		
	Male	Female	Total		Male	Female	Total
Banff.....	52	37	89	46	10	11	21
Calgary.....	456	396	852	506	277	181	458
Cardston.....	39	23	62	15	3	3	6
Edmonton.....	213	195	408	242	73	54	127
High River.....	54	59	113	59	23	12	35
Innisfail.....	87	88	175	50	24	24	48
Lacombe.....	157	182	339	159	49	42	91
Lethbridge.....	145	119	264	90	42	27	69
Macleod.....	132	119	251	149	62	47	109
Medicine Hat.....	124	144	268	102	70	42	112
St. Albert.....	80	59	139	36	20	25	45
Strathcona.....	229	202	431	132	77	54	131
Wetaskiwin.....	212	199	411	144	63	58	121
Victoria.....	268	268	536	141	50	42	92
Total.....	2,248	2,090	4,338	1,871	843	622	1,465

## BIRTHS AND RATIO OF BIRTHS TO DEATHS.

YEAR	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	YEAR	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1902	1,010	2.59	1905	1,059	3.11
1903	1,056	2.95	1906	1,094	2.07
1904	1,118	3.04	1907	1,075	2.96

Deaths of Infants (under one year)—

To 1,000 births, 1907.....100.27

To 1,000 deaths from all causes, 1907.....296.92

## MARRIAGES—Origins of Contracting Parties.

		BRIDES											
		English Speaking Countries				Others							
		Canada	United States	United Kingdom	Totals	Germans	Austrians	Scandinavian	French	Others	Totals	Half Breeds	Indians
BRIDEGROOMS													
Eng. speaking countries	Canada.....	419	128	77	624	5	...	1	2	10	18	...	...
	United States.....	85	213	27	325	...	2	7	...	14	23	...	...
	United Kingdom.....	106	50	305	461	...	...	1	1	5	7	...	...
	Totals.....	610	391	409	1,410	5	2	9	3	29	48	...	...
Others	Germans.....	7	4	3	14	14	4	...	...	5	23	...	...
	Austrians.....	1	1	1	3	2	167	...	...	6	175	...	...
	Scandinavian.....	1	11	2	14	...	...	75	...	...	75	...	...
	French.....	2	1	...	3	...	...	...	7	1	8	...	...
	Others.....	7	21	5	33	4	...	...	1	60	65	...	...
Totals.....		18	38	11	67	20	171	75	8	72	346	...	...
Half Breeds.....		...	...	...	...	...	...	...	...	...	...	...	...
Indians.....		...	...	...	...	...	...	...	...	...	...	...	...
Totals.....		628	429	420	1,477	25	173	84	11	101	394	...	...



MARRIAGES.—Religious Denominations of Contracting Parties.

BRIDEGROOMS		BRIDES															
Officiating Clergymen	DENOMINATIONS	Presbyterians	Methodists	Anglicans	Roman Catholics	Lutherans	Greek Catholics	Baptists	Mennonites	Latter Day Saints	Moravians	Evangelical Reformed	Congregationalists	Greek Independent	Others	Not Stated	Totals
509	Presbyterians.....	258	46	40	7	13	...	14	...	1	...	...	7	...	8	...	394
381	Methodists.....	46	203	24	5	9	...	15	1	...	...	5	10	1	14	2	335
255	Anglicans.....	42	26	192	14	3	...	18	...	2	...	1	4	...	4	...	306
245	Roman Catholics.....	9	6	17	222	6	...	5	...	2	...	1	1	...	1	2	272
129	Lutherans.....	9	4	2	7	145	...	4	...	...	1	6	1	...	2	1	182
85	Greek Catholics.....	...	...	...	...	86	...	...	...	...	...	...	...	...	...	...	86
164	Baptists.....	20	17	11	3	4	...	45	...	2	...	2	1	...	1	1	107
6	Mennonites.....	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	5
27	Latter Day Saints.....	...	3	1	...	1	...	...	...	20	...	...	1	...	...	...	26
3	Moravians.....	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2
28	Evangelical Reformed.....	...	2	...	...	2	...	5	...	...	...	9	...	...	...	...	18
4	Congregationalists.....	...	4	2	...	1	...	3	...	...	...	...	5	...	...	...	15
18	Greek Independent.....	...	...	...	...	...	...	...	...	...	...	...	...	20	...	...	20
17	Others.....	7	7	7	3	3	...	7	...	...	...	...	...	...	42	...	76
...	Not Stated.....	2	...	5	3	4	...	...	...	1	...	...	...	...	...	12	27
1,871	Totals.....	393	318	301	264	191	86	116	6	28	3	24	30	20	72	18	1,871

VIII.—OFFICE WORK AND ORGANIZATION.

The year 1906 was necessarily one of organization of the department. During the present year this has been still further carried forward.

It was deemed inadvisable at the inauguration of the province to erect a laboratory and appoint a provincial bacteriologist, analyst and pathologist. It was thought that the laboratory established by the Territorial Government at Regina could, meanwhile, serve both provinces. The department, therefore, agreed to bear one-half of the expenses of its maintenance on condition that the Province of Alberta should have the same right to its services as the Province of Saskatchewan.

At the beginning of the present year it was decided that there was sufficient work within the province to justify the establishment of a provincial laboratory for Alberta, and provision was made in the estimates for same. Daniel G. Revell, B.A., M.B., of the University of Chicago, was selected as bacteriologist and analyst and later was made director of the provincial laboratory. At the time of his appointment he was instructed to visit the leading laboratories of the United States and Eastern Canada in order to study their equipment and methods of work.

Since his arrival in Edmonton in August, his time has been largely taken up in the supervision of the installing of the appointments of the laboratory and general preparatory arrangements for work. His report of what has been done appears elsewhere.

During the year a change was made in the Public Health Branch, L. E. W. Irving, M.D., C.M., having been appointed to the position of provincial health officer on the retirement of A. E. Clendenan, M.D., the former occupant. Dr. Irving brings to his work the experience he gained as medical health officer of the city of Edmonton

and has taken hold of his work with a firm grasp. A large share of his time has been taken up with the work of the Provincial Board of Health in drafting rules and regulations for the carrying into effect of The Public Health Act.

The new Public Health Act having made provision for the appointment of a Provincial Board of Health, the following members were duly appointed:

J. D. Lafferty, M.D., Calgary; F. W. Mewburn, M.D., Lethbridge; C. N. Cobbitt, M.D., Edmonton; and R. B. Owens, B.A., B.E. The provincial health officer is secretary of the board by virtue of his office.

The board has held a number of meetings preparing rules and regulations which it is hoped will soon be ready for publication.

In connection with the care of the public health, problems respecting the water supply, disposal of sewage, plumbing, etc., have arisen from the first, and with the prospective rapid increase of population the need of a proper solution of these was felt to be urgent. It was therefore decided to employ a provincial sanitary engineer, who could bring to the solution of these problems the best modern technical knowledge and skill. Accordingly, Mr. R. B. Owens, B.A., B.E., who had spent twenty months in the Surveyor General's office at Ottawa, and had previously been employed as one of the resident engineers by the corporation of Belfast, Ireland, was selected and entered upon his work at the beginning of July and has given himself with great diligence to the solution of the many problems of his department. His report will be found elsewhere. He was made a member of the Provincial Board of Health in order that that body might have the benefit of his experience.

Over four hundred volumes have been added to the departmental library during the year. In addition, a considerable number of bulletins and other publications have been donated by experimental stations and agricultural colleges in various countries. The whole has been classified, arranged and indexed. The department has already a valuable library which is proving of great assistance in its work.

The volume of correspondence has grown rapidly during the year. 22,657 communications have been received at Edmonton as compared with 12,923 in 1906, and 97,320 communications have been sent out as compared with 58,018 of the former year. At the Brand Office of Medicine Hat, the total number of letters received was 4,039, while the documents despatched was 6,421. At the office of the dairy commissioner, Calgary, the number of letters received was 3,896 and the number despatched was 5,362, making a total from the department of 30,592 communications received and 109,103 sent.

The thanks of the department are due in conclusion to the press of the province for their readiness to publish any information furnished by the department for the public good. Thanks are also due to the railway companies for their willingness to assist, wherever it lay in their power, the work which the department had in hand. Indeed it is a great pleasure to state that in whatever direction the department looked for assistance in any project which it had under way, that it always has been accorded hearty support and good wishes.

I have the honour to be, Sir,

Your obedient servant,

GEO. HARCOURT,

*Deputy Minister of Agriculture.*



## 2.—REPORT OF THE DAIRY COMMISSIONER.

SIR,—I have the honour to submit herewith report of the Dairy Commissioner's Branch for the year ending December 31st, 1907.

### I.—GENERAL.

Owing to the unusually severe climatic conditions during the winter 1906-07 and the late spring following, the dairy industry of the province, in common with that of many other sections of Canada, received a slight set back in point of volume of production.

Not only the actual losses of stock by exposure and lack of feed and care, but the smaller milk production of last summer should emphasize once more the fact that dairying cannot be carried on profitably unless ample provisions be made for suitable feed, water supply and shelter for the dairy stock during all portions of the year. This was felt by the creameries especially. The small production coupled with bare markets, a good local demand for homemade butter and consequent higher price levels, induced many to make their own butter for the local market who would otherwise have patronized the creameries.

It is difficult to understand why farmers should not be more loyal to their local creameries, as without them they would certainly find it a very difficult matter under normal conditions to dispose of their dairy products to advantage.

Notwithstanding the general shortage in the butter production one very encouraging feature, worthy of special mention, is that in creamery districts where the farmers were properly equipped for feeding and caring for their stock the shortage in the output was comparatively small and the higher prices obtained for the butter brought increased profits.

During the past season 45 creameries were in operation in the province. Of these 21 were operated by the Government, for the co-operative associations owning them, and 24 were managed by private enterprise. Eight cheese factories were also in operation. The total output of the creameries during the year was 1,500,000 pounds of butter, valued at \$350,000, and the cheese factories turned out 195,000 pounds of cheese valued at about \$27,000.

Nine new creameries and four cheese factories were established and put into operation during the year.

### II.—GOVERNMENT CREAMERIES.

Twenty-one creameries were operated by the department during the past summer season. Tables 1, 2 and 3 give a summary of the patronage cream supply, and butter output of each, also prices realized from the sales of the butter. Two new creameries were erected and equipped during the summer, but as they were not ready to commence operations until too late in the season to make a favourable showing it was decided not to open them till the following spring. They are located at Bonnie Glen and Conjuring Creek.

The creameries which were operated in 1906 at Clover Bar and Beaver Hills did not re-open last spring for reasons stated under "general".

To the previous season's list five were added, three new ones located at Crossfield, Spring Lake and Rimbey; and those at Content and Lamerton which had been operated privately but since purchased from the owners by Farmers' Co-operative Creamery Associations.

TABLE I.—SUMMARY OF BUSINESS DONE AT GOVERNMENT CREAMERIES IN ALBERTA, 1897 TO 1907, INCLUSIVE.

NAME OF STATION	Season	No. of Patrons	Inches of Cream supplied	Lbs. of Cream Supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at Creamery per lb. Cents	Manufacturing Charge per lb. Cents	Number of days in operation	Gross value of product
Calgary.	1897	31	7,065.1	.....	168,957	14,071	19.40	4	146	\$ 2,729.80
	1898	59	15,627.0	.....	125,186	19,389	20.25	4	168	3,926.70
	1899	43	24,806.7	.....	.....	24,677	21.55	4	174	5,319.47
	1900	65	31,624.2	.....	.....	34,099	20.21	4	178	6,893.20
	1901	64	27,427.6	.....	.....	28,178	19.28	4	163	5,435.20
	1901-2	141	27,168.3	.....	.....	27,828	24.56	4	177	6,834.84
	1902	41	16,981.0	.....	.....	19,162	23.89	4	184	4,578.48
	1902-3	12	656.5	.....	.....	639	25.00	4	32	159.75
	1903	58	30,482.1	.....	.....	33,286	20.05	4	184	6,675.14
	1904	20	12,450.5	.....	.....	14,018	20.90	4	179	2,930.31
	1905	56	29,788.2	.....	.....	33,312	21.07	4	167	7,019.19
	1906	54	24,708.8	.....	.....	27,169	21.647	4	148	5,881.38
	1907	14	.....	16,136	.....	5,028	23.715	4	90	1,192.42
	1897	90	13,901.7	.....	327,451	27,364 $\frac{3}{4}$	17.68	4	151	4,840.26
Edmonton.	1898	48	12,346.3	.....	115,036	17,068	18.80	4	126	3,209.19
	1899	49	14,149.9	.....	70,144	17,322	20.96	4	160	3,631.56
	1900	51	18,693.7	.....	.....	17,089	20.60	4	168	3,520.61
	1901	59	17,210.9	.....	.....	16,508	20.00	4	153	3,302.29
	1902	37	13,012.8	.....	.....	14,217	19.93	4	143	2,833.92
	1903	51	14,757.0	.....	.....	16,348	19.76	4	122	3,231.40
	1904	27	9,128.7	.....	.....	11,758	20.50	4	118	2,410.92
Innisfail.	1897	81	19,143.9	.....	390,645	38,621	18.91	4	154	7,304.36
	1897-8	73	5,485.5	.....	133,597	12,114	23.79	4	181	2,882.38
	1898	105	39,003.5	.....	437,405	57,717	20.40	4	184	11,775.55
	1898-9	107	18,072.0	.....	148,904	22,664	23.10	4	181	5,237.25
	1899	156	68,924.8	.....	349,682	86,040	20.69	4	184	17,805.53
	1899-0	90	21,156.4	.....	6,770	18,895	23.65	4	181	4,469.63
	1900	130	84,429.2	.....	.....	89,402	20.05	4	184	17,926.15



TABLE I.—SUMMARY OF BUSINESS DONE AT GOVERNMENT CREAMERIES IN ALBERTA, 1897 TO 1907, INCLUSIVE—(Continued).

NAME OF STATION	Season	No. of Patrons	Inches of Cream supplied	Lbs. of Cream supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at Creamery per lb. Cents	Manufacturing Charge per lb. Cents	Number of days in operation	Gross value of product
Innisfail.....	1900-1	98	21,767.3	.....	.....	21,795	23.39	4	181	5,098.84
	1901	131	83,588.3	.....	.....	90,484	19.16	4	184	17,338.49
	1901-2	75	13,445.1	.....	.....	12,721	24.54	4	92	3,122.09
	1902	124	90,329.6	.....	.....	99,245	20.86	4	184	20,709.49
	1902-3	166	41,265.2	.....	.....	42,634	24.30	4	183	10,326.42
	1903	180	118,428.5	.....	.....	141,372	19.34	4	184	27,338.41
	1903-4	107	24,816.0	.....	.....	27,559	24.54	4	179	6,765.52
	1904	193	126,223.2	.....	.....	158,719	20.64	4	181	32,774.11
	1904-5	130	28,600.9	.....	.....	31,730	25.00	4	180	7,935.40
	1905	204	152,258.4	.....	.....	199,466	21.44	4	188	42,780.52
	1905-6	156	35,834.2	.....	.....	42,320	25.37	4	181	10,739.12
	1906	233	144,736.8	.....	.....	186,486	21.589	4	187	40,261.03
	1906-7	173	31,333.9	.....	.....	35,380	27.848	4	174	9,852.65
	1907	179	17,953.2	305,116.2	.....	119,834	23.468	3.989	189	28,123.01
	1897	66	22,079.5	.....	225,067	30,148	18.70	4	153	5,639.83
	1897-8	54	8,604.0	.....	97,777	11,104	22.93	4	181	2,546.57
	1898	76	28,253.9	.....	217,572	42,878	19.84	4	184	8,507.54
Red Deer.....	1898-9	68	12,148.8	.....	127,724	19,782	23.07	4	181	4,565.42
	1899	110	46,676.0	.....	157,306	62,142	20.86	4	184	12,968.23
	1899-0	51	13,173.5	.....	.....	15,477	23.90	4	181	3,711.38
	1900	92	49,475.0	.....	.....	63,859½	20.25	4	182	12,933.18
	1901	111	47,665.2	.....	.....	60,450	19.16	4	188	11,583.12
	1902	83	43,181.4	.....	.....	55,091	20.54	4	181	11,320.28
	1902-3	72	17,407.5	.....	.....	21,196	24.30	4	183	5,152.69
	1903	179	63,289.8	.....	.....	80,546	20.37	4	184	16,410.21
	1903-4	100	17,444.3	.....	.....	19,627	24.69	4	179	4,847.76
	1904	98	58,973.1	.....	.....	74,447	20.63	4	181	15,365.16
	1904-5	129	20,193.5	.....	.....	23,812	25.08	4	178	5,974.00
	1905	131	80,335.9	.....	.....	101,031	21.41	4	188	21,634.92

Red Deer	1905-6	174	31,068.8	.....	.....	35,554	25.26	4	181	8,984.34
	1906	161	83,088.0	.....	.....	100,036	21.315	4	187	21,323.57
	1906-7	83	17,154.9	.....	.....	20,358	27.882	4	174	5,676.23
	1907	83	12,670.0	110,427.7	.....	53,224	23.481	4	189	12,497.95
Wetaskiwin	1897	47	2,669.7	.....	342,980	17,691 $\frac{1}{2}$	18.68	4	125	3,306.43
	1898	58	8,576.5	.....	456,914	27,136	20.08	4	192	5,449.65
	1899	71	14,815.4	.....	403,581	32,350	20.98	4	184	6,789.29
	1899-0	35	4,780.1	.....	66,967	7,637	23.89	4	181	1,824.95
	1900	66	16,384.1	.....	364,130	33,770	20.10	4	184	6,787.70
	1900-1	37	4,236.2	.....	29,486	4,882	23.21	4	181	1,133.52
	1901	27	7,918.1	.....	80,579	12,185	19.18	4	160	2,338.10
	1903	32	15,447.1	.....	.....	18,667	19.34	4	153	3,610.63
	1904	9	2,249.8	.....	.....	2,501	21.22	4	64	530.75
	1905	158	69,208.7	.....	.....	83,807	21.28	4	195	17,836.80
	1906	100	56,579.7	.....	.....	72,021	21.073	4	195	15,176.95
	1907	38	1,318.3	47,116.0	.....	17,194	22.598	4	189	3,885.64
Tindastoll	1899	66	6,350.2	.....	162,406	14,655	21.78	4	112	3,192.51
	1899-0	52	8,481.1	.....	26,734	10,009	23.95	4	181	2,397.80
	1900	75	37,374.1	.....	9,798	45,755	20.04	4	184	9,173.08
	1900-1	46	7,696.4	.....	.....	7,874	23.02	4	181	1,812.80
	1901	41	28,235.8	.....	.....	31,527	19.15	4	184	6,037.87
	1901-2	35	9,454.1	.....	.....	9,000	24.45	4	181	2,200.82
	1902	64	42,055.5	.....	.....	48,086	20.79	4	174	9,997.71
	1902-3	50	10,866.4	.....	.....	10,608	24.29	4	183	2,577.46
	1903	74	46,639.2	.....	.....	51,169	19.28	4	184	9,864.96
	1903-4	45	7,981.1	.....	.....	7,432	24.63	4	180	1,830.55
	1904	57	36,368.0	.....	.....	43,725	20.50	4	181	8,967.39
	1904-5	56	9,726.3	.....	.....	9,757	25.03	4	181	2,443.08
	1905	78	52,398.7	.....	.....	65,536	21.39	4	188	14,024.56
	1905-6	85	17,659.9	.....	.....	20,315	25.27	4	181	5,134.62
	1906	106	68,523.5	.....	.....	89,471	21.326	4	187	19,080.85
	1906-7	86	17,477.8	.....	.....	20,436	27.882	4	174	5,654.14
	1907	106	17,404.6	168,501.3	.....	82,322	23.227	3.728	189	19,121.02
Cardston	1899	14	.....	.....	101,075	4,142	22.402	4	130	927.91
Olds	1900	31	11,597.6	.....	.....	11,007	20.00	4	93	2,201.70
	1901	30	22,195.5	.....	.....	22,166	19.11	4	169	4,236.98



TABLE I.—SUMMARY OF BUSINESS DONE AT GOVERNMENT CREAMERIES IN ALBERTA, 1897 TO 1907, INCLUSIVE—(Continued).

NAME OF STATION	Season	No. of Patrons	Inches of Cream supplied	Lbs. of Cream supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at Creamery per lb. Cents	Manufacturing Charge per lb. Cents	Number of days in operation	Gross value of product
Olds.....	1902	49	38,892.1	.....	.....	42,637	20.73	4	217	8,841.31
	1903	79	53,879.3	.....	.....	65,904	19.29	4	184	12,714.40
	1903-4	50	7,764.1	.....	.....	7,732	24.61	4	180	1,903.04
	1904	58	38,850.1	.....	.....	48,338	20.59	4	181	9,956.80
	1904-5	56	9,400.8	.....	.....	9,881	24.90	5	180	2,461.03
	1905	110	80,644.6	.....	.....	103,506	21.38	4	188	22,136.38
	1905-6	77	19,302.1	.....	.....	21,353	25.22	4	181	5,386.30
	1906	117	80,128.1	.....	.....	105,129	21.376	4	187	22,472.11
	1906-7	63	14,150.3	.....	.....	16,262	27.667	4	174	4,531.88
	1907	114	9,334.3	186,071.0	.....	71,678	23.279	3.77	189	16,686.13
Blackfalds.....	1903	84	29,541.8	.....	.....	35,981	19.29	4	120	6,941.55
	1903-4	28	1,239.3	.....	.....	1,354	24.46	4	27	331.21
	1904	84	32,384.4	.....	.....	40,048	20.50	4	181	8,212.39
	1905	120	59,386.2	.....	.....	76,703	21.30	4	188	16,340.89
	1906	153	67,987.2	.....	.....	90,283	21.12	4	187	19,068.65
	1906-7	53	9,739.8	.....	.....	11,300	27.602	4	174	4,531.88
	1907	83	5,331.4	108,299.05	.....	40,345	23.19	4	189	9,356.22
	1903	51	10,831.6	.....	.....	14,138	19.31	4	98	2,730.10
	1904	54	19,200.9	.....	.....	22,587	20.44	4	181	4,617.51
	1905	105	47,485.0	.....	.....	59,768	21.29	4	188	12,728.61
Lacombe.....	1906	108	48,569.1	.....	.....	63,729	20.964	4	187	13,352.51
	1907	19	1,198.5	26,298.55	.....	12,465	22.705	4	134	2,830.28
	1905	44	14,183.8	.....	.....	19,527	20.77	4	134	4,057.14
	1906	21	4,731.1	.....	.....	6,482	20.208	4	67	1,309.90
Clover Bar.....	1905	58	12,565.4	.....	.....	13,057	21.57	4	120	2,817.38
	1906	47	12,665.8	.....	.....	14,090	20.788	4	132	2,929.18

Earlville.....{	1905	73	22,834.3	.....	.....	30,681	21.55	4	120	6,612.68
	1906	141	71,876.0	.....	.....	90,768	21.219	4	216	19,260.13
	1907	65	5,974.9	81,836.5	.....	34,429	22.949	3,988	181	7,901.31
Evarts.....{	1905	80	24,244.4	.....	.....	27,036	21.01	4	154	5,682.33
	1906	79	35,210.8	.....	.....	37,292	21.126	4	188	7,878.48
	1907	59	4,423.1	60,683.1	.....	23,390	22.819	4	186	5,337.51
Ferry Bank.....{	1906	92	43,255.0	.....	.....	54,999	21.081	4	173	11,594.57
	1906-7	60	6,227.2	.....	.....	7,190	27.630	4	109	1,986.61
	1907	89	16,979.7	96,371	.....	53,430	23.17	3,809	188	12,380.11
Martins.....{	1906	82	.....	95,959	.....	31,151	19.318	5	153	6,017.75
	1907	23	.....	11,494	.....	3,966	21.52	4	92	853.49
Pine Creek.....{	1906	58	20,650.3	.....	.....	24,274	21.798	4	117	5,291.47
	1907	60	7,487.2	80,158.9	.....	31,400	23.3402	4	195	7,329.05
Rosenroll.....{	1906	63	15,752.4	.....	.....	20,506	21.184	4	126	4,344.01
	1906-7	8	759.3	.....	.....	848	27.421	4	56	232.53
	1907	40	1,014.8	34,022.4	.....	11,722	22.41	4	134	2,626.92
Stettler.....{	1906	76	23,726.1	.....	.....	29,439	21.088	4	146	6,208.11
	1907	57	1,402.7	67,879.9	.....	23,605	22.71	4	172	5,360.69
Stony Plain.....{	1906	64	6,122.8	.....	.....	7,029	21.46	4	64	1,508.46
	1907	35	2,201.7	.....	.....	2,756	22.053	4	48	607.79
Content.....{	1907	60	2,598.1	71,423.3	.....	26,725	22.942	4	174	6,131.29
Crossfield.....{	1907	24	.....	15,804.5	.....	4,292	22.1645	4	69	951.30
Rimbey.....{	1907	39	.....	17,998	.....	5,938	22.8583	4	61	1,361.08
Lamerton.....{	1907	60	.....	72,304.85	.....	21,917	22.6593	4	152	4,966.26
Spring Lake.....{	1907	24	.....	23,045	.....	7,528	23.797	4	94	1,791.51



TABLE II.—TOTALS OF THE FOREGOING BY SEASONS.

SEASON	No. of Pat- rons	Inches of Cream supplied	Lbs. of Cream supplied	Lbs. of Milk supplied	Lbs of Butter manufac- tured	Average price realized at cr'mry per lb.	Gross value of Product
						Cents	
1897	315	64,859.9	.....	1,455,100	127,896½	18.625	\$ 23,820.68
1897-8	127	14,089.5	.....	231,374	23,218	23.382	5,428.95
1898	346	103,807.2	.....	1,352,113	164,189	20.018	32,860.63
1898-9	175	30,220.8	.....	276,628	42,446	23.094	9,802.67
1899	509	175,723.0	.....	1,244,194	241,328	20.981	50,634.50
1899-0	228	47,591.1	.....	100,471	52,018	23.845	12,403.76
1900	510	249,577.9	.....	373,928	294,981½	20.148	59,435.62
1900-1	171	33,699.9	.....	29,486	34,551	23.284	8,045.16
1901	463	234,241.4	.....	80,579	261,498	19.224	50,272.05
1901-2	251	50,067.5	.....	.....	49,549	24.536	12,157.75
1902	398	244,452.4	.....	.....	278,438	20.931	58,281.19
1902-3	300	70,195.6	.....	.....	75,077	24.311	18,252.32
1903	788	383,296.4	.....	.....	457,411	19.570	89,516.80
1903-4	330	59,244.8	.....	.....	63,704	24.610	15,678.08
1904	600	335,828.7	.....	.....	416,141	20.609	85,765.34
1904-5	371	67,921.5	.....	.....	75,180	25.024	18,813.51
1905	1,217	645,333.6	.....	.....	813,430	21.350	173,671.40
1905-6	492	103,865.0	.....	.....	119,542	25.300	30,244.38
1906	1,755	808,311.5	95,959.00	.....	1,050,356	21.227	222,959.11
1906-7	526	96,843.2	.....	.....	111,774	27.784	31,053.10
1907	1,268	107,292.5	1,600,986.71	.....	653,208	23.161	151,291.78
		3,926,463.4	1,696,945.71	5,143,873	5,405,934½		\$1,160,396.78

TABLE III.—SUMMARY OF THE BUSINESS DONE FOR THE SUMMER SEASON, 1907,  
AT THE PROVINCIAL GOVERNMENT CREAMERIES IN ALBERTA.

CREAMERY AT	No. of Pat- rons	Butter Manu- factured pounds	Value at Creamery	Average price at Cream'y for Sea'n	AVERAGE PRICES BY PERIODS		
					1st Period	2nd Period	3rd Period
				Cents	Cents	Cents	Cents
Calgary.....	14	5,028	\$ 1,192.42	23.715	.....	22.301	25.376
Olds.....	114	71,678	16,686.13	23.279	27.662	21.980	25.028
Innisfail.....	178	119,834	28,123.01	23.468	27.849	21.975	25.242
Tindastoll.....	106	82,322	19,121.02	23.227	27.659	21.924	24.804
Red Deer.....	83	53,224	12,497.95	23.481	27.897	21.991	24.936
Evarts.....	59	23,390	5,337.51	22.819	27.453	21.905	24.820
Blackfalds.....	83	40,345	9,356.22	23.190	27.770	21.902	24.700
Lacombe.....	19	12,465	2,830.28	22.705	.....	21.846	24.877
Content.....	60	26,725	6,131.29	22.942	27.520	21.816	24.687
Earlville.....	65	34,429	7,901.31	22.949	27.538	21.848	24.648
Ferry Bank.....	89	53,430	12,380.11	23.170	27.531	21.826	24.760
Wetaskiwin.....	38	17,194	3,885.64	22.598	.....	21.794	24.601
Rosenroll.....	40	11,722	2,626.92	22.410	.....	21.843	24.473
Stony Plain.....	35	2,756	607.79	22.053	.....	22.053	.....
Martins.....	23	3,966	853.49	21.494	.....	21.494	.....
Stettler.....	57	23,605	5,360.69	22.710	27.472	21.754	24.567
Crossfield.....	24	4,292	951.30	22.164	.....	22.164	.....
Pine Creek.....	60	31,400	7,329.05	23.344	27.664	21.952	25.332
Rimbey.....	39	5,958	1,316.88	22.858	.....	22.053	23.960
Lamerton.....	60	21,917	4,964.76	22.652	.....	21.807	24.574
Spring Lake.....	24	7,528	1,791.51	23.797	.....	21.787	24.646
Totals and Averages.....	1,267	653,208	\$151,290.28	23.161	27.722	21.911	24.889

*Convention at Lacombe.*

The following letter was addressed to the secretaries of the associations whose creameries had been operated by the Government during the previous year. The object of the meeting is here outlined and special reference made to the desirability of making certain changes in the working agreement.

"PROVINCE OF ALBERTA, DEPARTMENT OF AGRICULTURE,  
OFFICE OF THE DAIRY COMMISSIONER.

"Calgary, January 7th, 1907.

"DEAR SIR,—I am directed by the Honourable the Minister of Agriculture to call a conference of representatives from the various creamery associations

in the province whose creameries have been operated by the Government during the past season.

"The conference will be held at Lacombe on Wednesday and Thursday the 16th and 17th inst., and your association is hereby invited to send two delegates who should arrange to reach Lacombe by the morning train on the 16th inst.

"The president and secretary-treasurer of your association, by virtue of their respective offices and their more intimate knowledge of the administrative and financial work of the association, would undoubtedly be the most suitable delegates to send, although if either be unable to go a substitute may be appointed by your board to act in his stead.

"The conference is called for the purpose of discussing with the department the immediate future of the creamery business. The agreement under which we are working at present terminates on April 30th next, and it is desired that full authority be vested the delegates to speak and act on behalf of the board of directors which they represent.

"I beg to hand you two copies of amended form of agreement which will be submitted to the various associations for the operation of creameries for the ensuing year, in order that the members of your board and the delegates may have an opportunity of familiarizing themselves with the several changes proposed, the more important ones being:

"1. A more frequent delivery of cream to the creamery;

"2. The manufacturing and handling of the butter at actual cost; and

"3. The establishment of a loan fund, a sinking fund or both.

"The first of these will result in the further improvement in the quality of the butter output of the creameries, enabling us to compete successfully in the best and most discriminating markets.

"The second explains itself.

"The third provision will place the business of the associations upon a more satisfactory and substantial basis, generally.

"These various points will be fully dealt with at the conference and a comprehensive statement of the past season's work at the Government creameries will also be presented.

"I am directed to state, further, that other important matters will be placed before the delegates, intimately connected with the subject for which the conference is called.

"Kindly arrange for the appointment and instruction of the delegates from your own association and advise this office at the earliest possible date.

"Respectfully yours,

"C. MARKER,

*Dairy Commissioner."*

Responding to this invitation the greater number of the associations sent delegates, some being unable to do so owing to transportation difficulties obtaining at the time.

Present were:

Hon. W. T. Finlay, Minister of Agriculture; Geo. Harcourt, Deputy Minister of Agriculture; C. Marker, dairy commissioner; H. S. Pearson, dairy instructor; Geo. W. Scott, dairy instructor; A. W. Foley, chief of poultry division; W. F. Puffer, M.P.P., Lacombe. Delegates: D. Morkeberg, president Tindastoll Association; J. Benidictson, vice-president Tindastoll Association; Joseph Cole, president Red Deer Association; C. J. B. Ward, secretary-treasurer Red Deer Association; Peter Jaffrey, vice-president Olds Association; Tom. L. Buckton, secretary-treasurer Olds Association; A. E. Fritz, secretary-treasurer Ferry Bank Association; S. C. Archibald, late acting secretary-treasurer Ferry Bank Association; Albert Ottewell, secretary-treasurer Clover Bar Association; J. D. Quantz, president Innisfail Association; Jas. Jenson, secretary-treasurer Innisfail Association; Sam Smith, president Evarts Association; E. S. Hussey, secretary-treasurer Evarts Association; G. Malchow, president Earlville Association; T. W. Fry, secretary-treasurer Earlville Association; A. S. Rosenroll, M.P.P., secretary-treasurer Wetaskiwin Association; Joseph Barron, president Blackfalds Association; Percy B. Gregson, secretary-treasurer Blackfalds Association; Col. J. J. Gregory, president Lacombe Association; D. C. Gourlay (Mayor of Lacombe) secretary-treasurer Lacombe Association; Dr. Findlater,



vice-president Lacombe Association; recording secretary, F. W. Underwood, accountant to dairy commissioner.

The convention was held in the town hall, Lacombe, which was kindly placed at our disposal by the mayor and council, who, in conjunction with the local creamery association, also tendered a complimentary banquet to the visiting delegates.

After an address of welcome by his worship the mayor, Mr. D. C. Gourlay, the Minister of Agriculture opened the proceedings by briefly reviewing the results of the previous year's work of the Government creameries, congratulating the associations upon the success which had attended their joint efforts and assuring those present of the co-operation and assistance of the department towards making their work even more successful in future.

The deputy minister, Mr. Geo. Harcourt, B.S.A., gave an exceedingly interesting and able address on the subject of "Building up a Dairy Herd."

The subject of "Fattening and Marketing of Poultry" was dealt with by the poultry superintendent, Mr. A. W. Foley, and followed by a general discussion leading up to a resolution being adopted asking the department to consider the advisability of extending the work of poultry fattening which had been carried on in connection with some of the creameries.

The dairy commissioner outlined the results of the work of the Government creameries during 1906, summaries of which had already been placed in the hands of all their patrons. The method followed by the department in disposing of the products of the creameries was also fully discussed, apparently to the satisfaction of the delegates.

### *The Working Agreement.*

The topic which gave rise to most discussion, perhaps, was the proposed amendment to the agreement, alluded to in the letter already quoted.

The changes proposed were somewhat far reaching and would involve several important changes in the business routine of the associations affected, but it was felt that once the changes were made the business would be placed upon a much better and more permanent basis.

The amended form of agreement for 1907, afterwards confirmed by order-in-council, was adopted and reads as follows:

#### MEMORANDUM OF AGREEMENT BETWEEN

AND THE DAIRY COMMISSIONER, ACTING FOR THE DEPARTMENT OF AGRICULTURE  
FOR THE PROVINCE OF ALBERTA.

1. The.....  
(hereinafter called the association) agree to provide suitable buildings and premises fully equipped for the manufacture of butter, and a sufficient supply of pure water and good drainage, all to the satisfaction of the dairy commissioner, for carrying on the business of manufacturing butter at....., in the Province of Alberta.

2. The association guarantee a cream supply to the creamery from at least four hundred cows for a period of not less than five months per year.

3. The association agree to give and assure to the Department of Agriculture free and undisturbed possession of the creamery buildings, premises and plant for a term of not less than one year from the first of May, 1907.

- (2) Any charge or claim on the buildings, premises or plant, on behalf of any person or persons whatsoever, is not to be considered as a claim on the Department of Agriculture.

4. The association, through its board of directors, agree to use all reasonable means to promote the interests of the creamery and to secure persons who will furnish a supply of cream in accordance with the rules and regulations attached to and forming part of this agreement.

5. The association agree that the cream shall be delivered at the creamery free of charge to the Department of Agriculture, and that the cream shall be delivered by, or collected from, each patron such number of times each week as may be required by the dairy commissioner.

6. The association hereby authorize the dairy commissioner from time to time to provide on its behalf and at its expense any addition to efficiency of the work in the creamery.

7. In consideration of the foregoing, the dairy commissioner agrees to manufacture from the cream which may be accepted at the creamery a first class quality of butter.

- (2) The right to reject any cream which he considers unfit for making into a first class quality of butter is reserved to the buttermaker in charge of the creamery, and his judgment and decision in the matter shall be final.

8. The dairy commissioner agrees to market the butter to the best of his judgment and ability, and to pay the persons supplying the cream, the net proceeds realized from all sales of butter and buttermilk, in proportion to the quantity of butter made from the cream furnished by each, after deducting—

- (1) The actual cost of manufacturing and care of the butter in cold storage until it be finally disposed of. This charge is not to exceed four cents per pound of butter.
- (2) Any charge which the board of directors of the..... association may direct to be paid for the delivery of cream to the creamery; and
- (3) Such further charge, or assessment as may be made on the manufactured butter for the purpose of a loan fund or a local working fund, or both, as set out in sections 12 and 13 of this agreement.

9. The dairy commissioner agrees to pay the said persons supplying the cream, severally, every month, such advances as he may estimate to be about two-thirds of the net value of the cream supplied by them or each of them.

- (2) Such advance payments shall be made in even dollars, and no advance payment shall be made for less than two dollars.

10. The dairy commissioner agrees to provide the labour, fuel, ice, packages and all other furnishings which are necessary in the operation of the creamery, to arrange for the necessary transportation of butter and sundry supplies between the creamery and nearest railway station, and to care for the butter in cold storage until it is sold and shipped from.....or Calgary.

11. The dairy commissioner agrees to insure the butter against loss by fire, as trustee for, and on behalf of, the persons supplying the cream, to the amount of two-thirds of its estimated market value but the creamery buildings, premises and plant are to be insured by the association on its own behalf, and the Department of Agriculture is not to accept or have any responsibility or liability in that connection. In any case in which the association is indebted to the Government the premium receipt or any renewal receipts for such insurance shall be sent to the dairy commissioner.

12. For the season 1907 the loan fund charge shall be.....cents per pound of butter manufactured, said charge to be applied as follows, viz.:

- (1) One (1) cent per pound of butter on the repayment of any loans heretofore or hereafter obtained by the association from the Government on account of plant and equipment supplied or installed.
- (2) .....cents per pound of butter on any other indebtedness due by the association upon capital account, the proceeds to be paid to the association.

13. The local working fund charge shall not be more than.....cents per pound of butter manufactured and shall be applied as follows, viz.:

- (1) Towards the payment of the annual interest on the indebtedness of the association for loans heretofore or hereafter obtained from the Government or from other sources. The interest upon the loans so obtained from the Government shall be charged at the rate of three per cent. on the unpaid balance of advances made in any year on account of loans, such interest to be computed on the first day of January following the year in which such advances are made, but no deduction shall be made from such annual percentage by reason of the receipt of the whole or any part



of the principal or interest before the end of the year in which the interest is so computed.

(2) Towards the payment of a dividend of not more than .....per cent. per annum on all paid up stock in the association.

(3) To provide for the insurance, taxes, up-keep and depreciation of the property of, and for such other charges as may be authorized by, the association.

14. Provision is to be made for the issuing of paid up shares in the association to the persons supplying cream to the creamery, in proportion to the amounts paid in by them severally to the loan fund, as set forth in section 12 of this agreement.

15. The dairy commissioner agrees to keep the creamery building and plant in a good state of repair, ordinary wear and tear, damage by fire, lightning, tempest and other casualty excepted.

Dated at.....this.....day of  
.....A.D. 1907.

WITNESS: .....  
.....*President of the Association.*

WITNESS: .....  
.....*Secretary of the Association.*

WITNESS: .....  
.....*Dairy Commissioner.*

### III.—ORGANIZATION OF CO-OPERATIVE CREAMERIES.

During the year a number of inquiries were received at this office for particulars regarding the organization and operation of co-operative creameries, and as the demand for such information appears to be rapidly increasing the following outline is submitted for the guidance of those who may be interested, but who may not have had occasion to previously acquire the necessary technical knowledge or business experience in such matters.

Co-operative creameries are organized by a number of persons forming themselves into an association under the provisions of The Dairymen's Act, 1907; each cream supplier becomes a shareholder and assumes a certain amount of the financial responsibility of the association. Nearly all the creameries in the province working on that basis are operated by the provincial Department of Agriculture and are known as Government creameries.

#### *Cream Supply.*

At the outset, a creamery should have a cream supply assured from not less than 400 cows, within easy hauling distance and for a term of years. If more can be secured, so much the better.

So far as our information goes, taking the average of over 1,000 dairy herds in Alberta of which we have records for the season 1906, the butter production per cow is about 100 pounds for the six months of summer. Taking this figure as a basis the creamery butter output from 400 cows should be in the neighbourhood of 40,000 pounds, a quantity which should keep the factory cost within the 4 cents per pound mark.

A creamery, co-operative or otherwise, is a successful business venture in proportion to the quantity of good butter it turns out, other conditions being equal. For that reason it is essential that a large and regular supply of good butter should be assured from the start.

(It may be stated here that owing to somewhat sparse settlement, small dairy herds and long distances for hauling, it is not practical to handle milk at the creameries in this province. The transportation charges would be too high. Hence, cream is handled

exclusively and delivered at the creameries twice or three times per week, according to circumstances.)

In order to ascertain the available cream supply for a creamery in any district a committee of four or more should be appointed to thoroughly canvass the surrounding territory which would become tributary, securing promises of both cream supply and stock subscriptions. For the sake of convenience and dispatch the territory to be canvassed should be so divided among the members of the committee as to avoid overlapping and yet admit of the whole ground being covered.

The following form may be used in the canvass:

#### AGREEMENT.

In the event of a co-operate creamery association being formed and a creamery established at..... we, whose names are subscribed, severally promise and agree to supply to such creamery when in operation and in the manner provided by the by-laws, rules and regulations of such association all the cream, not used in our own household, from the milk of the number of cows set opposite to our respective names and for a period of not less than three years. We also agree to subscribe for, and assume the responsibility of, capital stock in said association to the value shown, in column 8.

We have not pledged our support to any other creamery or cheese factory now established or in course of organization in this district, and we enter into this engagement subject to the provisions of The Dairymen's Act and such regulations as may be made from time to time in that behalf by proper authority.

DATE	NAME	P.O. ADDRESS	Location			No. of cows	Shares to the val. of	Witness to Signatures
			1 4 SEC	TP.	RG			
1	2	3	4	5	6	7	8	9

#### *The Canvassing Committee.*

Before starting out the members of the canvassing committee should familiarize themselves with the provisions of The Dairymen's Act and the most important features of creamery organization, such as are outlined herein, so that they may be in a position to give any information desired by the prospective subscribers to the canvassing sheets. It should be pointed out that no one should be asked to sign who is not prepared to carry out his agreement to supply cream and to become a stockholder. A creamery, like most other institutions, needs material as well as moral support.

A creamery cannot be built without the necessary funds being provided therefor and it cannot be operated profitably unless it receives a liberal and regular cream supply throughout each season's operation.

(The Dairymen's Act defines in section 16 the financial liability of the stockholders and in section 18 the penalty for non-fulfilment of contract to supply cream.)

The canvassing committee should be very careful to make no statements or promises which may lead to misunderstanding or create wrong impression in the minds of those who are asked to sign



their lists. It should be distinctly stated that the subscription becomes effective only in the event of the organization being formed.

A word of caution here may not be amiss. Creameries are now established in various portions of the province and each of them is depending on the cream supply from a more or less well defined territory for its business, and while in some respects competition may be "the life of trade" it very often turns out the reverse where creameries are concerned. If the competition for patronage becomes too keen, where creameries are established too closely together, it generally turns out the death of trade of the weaker ones. Hence it is extremely risky business for a new organization to solicit and depend upon the patronage of any one who has been, or is, supplying cream to another creamery, as he is just liable to "flop" again if everything is not to his liking. A new creamery organization should not, therefore, in any way encroach upon territory served, or capable of being economically served, by a creamery already in existence or in course of establishment, and the canvassing committee should be guided accordingly.

#### *Capital Stock, Subscriptions.*

The co-operative creamery associations doing business in this province are capitalized at from \$5,000 to \$10,000, according to the size of plant and volume of business carried on. Considering that the cost of the building and equipment of creamery and cold storage, suitable for handling properly the cream supply of 400 to 2,000 cows, range from \$4,500 to \$6,000 according to local cost of building material and labour, the capital stock of an association should be placed at, say, \$6,000 in shares of \$1.00 each. It is desirable that a sufficient amount should be subscribed to cover the whole cost of the plant, when fully paid up.

As co-operative creameries are established by the farmers and for their sole benefit it is only reasonable to expect that the financial responsibility should be assumed by them.

It is suggested, therefore, that they be asked to subscribe to the capital stock of the association not less than \$10 per cow from which they are prepared to guarantee a cream supply. Failing to raise a sufficient amount in this way the business men of the district interested may perhaps find it to their advantage to help out by subscribing the balance or a part of it. If the farmers who are directly concerned have not sufficient interest, and confidence, in the business and in their own powers to co-operate, others, who would be only indirectly concerned, could not fairly be expected to shoulder the burden for them.

#### *Organization.*

If, after the completion of the canvass for the cream supply and stock subscription, the results appear to justify further action a meeting may be called of those who subscribed either or both, for the purpose of forming an association in accordance with the provisions of The Dairymen's Act.

When the declaration has been registered with the Provincial Secretary and notice of such registration has been received, a meeting of the shareholders should be called for the enrolment of additional stockholders, the election of officers, the adoption of by-laws, and signing of formal contracts for the cream supply. A form similar to the following may be found suitable for the latter purpose.

## AGREEMENT.

We, whose names are subscribed, severally promise and agree to supply to the creamery operated by and for the.....creamery association all the cream, not used in our own household, from the milk of the number of cows set opposite to our respective names for a period of not less than three years and in accordance with the by-laws of the said association.

We also agree to subscribe for capital stock in the said association to the value shown in column 8.

We have not pledged our patronage to any other creamery or cheese factory now established or in course of organization in this district and we enter into this engagement subject to the provisions of The Dairymen's Act and such regulations as may be made from time to time by the association.

DATE 1	NAME 2	P.O. ADDRESS 3	Location			No. of cows 7	Shares to the val. of 8	Witness to Signature 9
			$\frac{1}{4}$ SEC 4	TP. 5	RG 6			

The board of directors will then be in a position to make arrangements for the erection of building upon land secured by the association for the purpose of its business, and enter into the necessary negotiations for the operation of the plant.

*Operating Expenses.*

All the operating expenses of a creamery have to be paid out of the proceeds from the sale of its products, the butter and the buttermilk, and they include (A) the cost of manufacturing the butter, (B) the delivery of the cream to the creamery and (C) the local cost of administration. These items are set out in detail hereafter, and give a fairly concise view of the situation.

(A) The manufacturing, or factory, cost include the following principal items of expenditure:

1. Labour (wages, etc., of the buttermaker and help).
2. Fuel, for power and heating.
3. Ice, for cold storage and cooling purposes.
4. Repairs and renewals of creamery equipment.
5. Supplies, packages, salt, colour, cleaning utensils, etc.
6. Insurance on butter while in creamery.
7. Cartage on butter to railway station.

(B) Cream delivery.

The cost of collecting and delivering the cream at the creameries, when done by regularly employed haulers, varied last season from  $1\frac{1}{3}$  cents to  $7\frac{1}{3}$  cents per pound of butter according to the quantity of cream collected.

This charge should not, however, exceed 2 cents per pound, and if it can be done at lower rate so much the better for the farmers who supply the cream, as their nett returns will be correspondingly increased.

Speaking of the cost of having cream collected and delivered at the creamery on the same day, we should consider the distance a cream



gatherer would have to travel to pick up a sufficient quantity of cream to make a reasonable day's wages for himself and team at a fair charge per pound of butter contained in this cream, say 1 to 2 cents. If he can not make fair wages he will not continue in that line of work. If, on the other hand, in order that he may make fair wages a greater proportion of the value of the butter has to be expended for his services it necessarily means that the farmers will have to take a lower price, proportionately, for their butter.

In some creamery districts farmers make their own arrangements for taking their cream to the creamery either individually or in co-operation with their neighbours, thereby saving or, rather, earning themselves, the charge which would otherwise be made for that service.

Although this plan is an excellent one, and to be recommended for several reasons, yet it is not likely to work out successfully in a newly organized creamery territory. The dairy herds and the cream supply being mostly small the saving effected in the expense would not fully compensate the farmers for the time lost from his other, and sometimes more pressing, work on the farm.

(C) Local cost of administration.

This includes such items as:

1. Salaries of local officers, and all office expenses.
2. Interest on capital invested in creamery and plant.
3. Taxes on the property of the association.
4. Insurance on building and plant.
5. Provision for sinking fund.

All these expenses, as stated above, become a charge on the butter and would amount to about 1½c. per pound on the output of 40,000 pounds in the season, again showing the necessity of a large volume of business to reduce the pro rata expense.

When the charges outlined under A, B and C have been satisfied, the remainder of the selling price of the butter is distributed among the cream suppliers in proportion to the quantity of butter manufactured for each, unless a special loan fund assessment be made as well in which case that, too, is charged against the selling price, though paid up stock is issued therefor to each patron.

#### IV.—PRIVATE CREAMERIES.

Twenty-four creameries were operated by private enterprise during the summer season 1907. They produced, according to returns received at this office, 625,230 pounds of butter and were patronized by 1,056 farmers. During the season new ones were established and operated at Three Hills, Bentley, Trochu Valley, Carbon, Springfield and Lewisville. Two of the private creameries which operated in 1906 did not re-open.

Two others, located at Lamerton and Content, were purchased by the farmers of the districts, who organized themselves into co-operative associations and asked the Government to undertake their supervision and management of these creameries.

#### V.—CHEESE FACTORIES.

Cheese factories were operated at Kansas, Cremona, Stern, Burnt Lake, Springbank, Dog Pound, Erskine and Bentley; their combined cheese output was 195,000 pounds.

## VI.—TRAVELLING DAIRY WORK.

In addition to carrying on the operation of the 21 creameries and general instruction work, the department sent travelling dairies to a number of districts where the farmers were not within reach of creameries or cheese factories. Lectures and practical demonstrations were given by the instructors in charge, dealing with approved methods of farm dairying and butter making. This work has been commended from many quarters as being the means of gradually improving the quality and the saleability of home made butter in discriminating markets.

The following places were visited by the travelling dairy in the Medicine Hat district during the month of July: Josephburg, Woolchester, Medicine Hat, Irvine and Seven Persons.

It was a source of gratification to many of the farmers who attended some of these meetings to see the Hon. the Minister of Agriculture personally take part in the programme by outlining the work done by this department towards the development of more skill and the dissemination of expert knowledge in dealing with the numerous and complex problems facing the farmer in his work at every turn.

During the month of September the following places were visited by the travelling dairy: Tofield, Holden, Earling, Viking, Vegreville, Warwick, Whitford, Wostok, Chipman, Mundare, Innisfree, Mannville, Vermilion, Islay, Kitscoty and Lloydminster.

Owing to very inclement weather and bad roads through the districts visited the meetings were, with few exceptions, poorly attended.

## VII.—CORRESPONDENCE.

During the twelve months ending December 31st, 3,896 communications have been received at this office and 5,362 dispatched. In addition to the latter several thousand leaflet bulletins have been issued and distributed among creamery patrons, whose names and addresses were available. Circulars of a technical nature have also been prepared and issued from time to time to cream collectors and butter makers, touching on their work.

*Acknowledgements.*

I again deem it a privilege to acknowledge my appreciation of the cheerful and diligent manner in which the members of the office and field staff of this branch have discharged the duties assigned to them. The demand upon their personal interest, technical skill and good judgment has been met in a gratifying manner.

To the press is also due our appreciation of excellent service in the interest of advanced dairying.

C. MARKER,  
*Dairy Commissioner.*



### 3.—REPORT OF CHIEF INSPECTOR OF NOXIOUS WEEDS.

SIR,—I have the honour to submit my second annual report as Chief Inspector of Weeds. During the year the number of inspection districts has been increased from 61 to 92 and the inspectors from 44 to 85. The work all over the province is now fairly well organized and it should be possible to accomplish a great deal of good. For purposes of instruction, a convention of the inspectors from Red Deer north was held on March 8th at Edmonton, at the time of the Provincial Seed Fair, at which lectures were delivered on grains and weeds. For the inspectors in the south a meeting was held during the live stock show at Calgary in April, and the whole question of weeds and weed destruction gone into thoroughly. In pursuance of the plan outlined in the report for 1906, in the last week in March, just before the spring work on the farm began, the inspectors were sent out for about a week to visit those farmers in their districts who had dirty land. On visiting these places methods of destroying weeds were discussed with the farmers and suggestions made. At the same time the inspectors were supplied with copies of a circular containing a memorandum to the same effect and these were left at the different places visited. The following is a copy of the memorandum:

#### METHODS OF CULTIVATION SUGGESTED WHERE LAND IS BADLY INFESTED WITH WEEDS.

It is always best to burn the stubble off in the spring if possible. This destroys many weed seeds and the land works better when there is no stubble.

Disk as early in the spring as possible and harrow. This covers the weed seeds and encourages their germination.

When the small weed plants are seen all over the field the land ought to be disked and harrowed again to destroy them and encourage the germination of a new crop.

About the beginning of June the land should be plowed and packed if possible, and if not, at least harrowed every day as it is plowed, and a crop of beardless barley sown. It is safe in Northern Alberta to sow this barley up till the middle of June.

When the crop is about six inches high it will be found of great advantage to harrow it as this will destroy any weeds which may have sprouted, and help to encourage the growth of the crop.

If there is still a quantity of weeds in the crop when it approaches maturity, it may be cut as green feed before the weeds are ripe. Usually, however, it will be found that the growth of barley will choke and kill any weeds which may come up afterwards.

Where fall wheat is grown this method of disking and harrowing at frequent intervals during the summer should be continued till it is time to plow for the fall wheat.

NOTE.—It is particularly important to disk and harrow as soon as possible in the spring and also to harrow the growing grain when it is six inches high.

The spring and summer of 1906 were as a rule wet all over the province, and most of the farmers found it impossible to get on the land in time to thoroughly carry out these suggestions, but wherever they were carried out in the south and in parts of the north they gave excellent results. The inspectors report very favourably of this procedure and I should like to suggest its being carried out another year.

The following leaflet was prepared and distributed with the view of drawing the attention of the scholars to the desirability of sowing clean seed and treating it for smut:

## WEEDS AND SMUT

In 1905 cost the farmers of Western Canada \$20,000,000.00.

Alberta's share of this was very small and may easily be less, for the remedies are simple and in the farmer's own hands.

## SEED.

No seed should be sown unless it is cleaned two or three times.

## FEED.

Many weed seeds pass through the digestive organs of horses without their germinating powers being affected and in this manner many weeds get on the land unsuspected by the farmer. All feed should be crushed, but it should be remembered that many of the worst weeds have seeds too small to be crushed, and it will be better to have it fanned before it is crushed.

## SMUT IN WHEAT.

Stinking smut is a plant which grows within the wheat plant and its seeds or spores take the place of the grain when the crop ripens. Smut balls are thus simply masses of spores enclosed in the outer shells of wheat grains. Threshing breaks these shells and the spores become scattered and stick to the other grains of the crop.

If grain bearing smut spores is used for seed the spores germinate with the seed and grow up within the wheat plants and the crop is again smutty.

It is important, therefore, that these smut spores be destroyed before the seed is sown, and the best way to do this is to treat the seed with a solution of bluestone or formalin.

Bluestone should be in the proportion of one pound to ten gallons of water. Formalin, one ounce to one gallon of water.

Seed may be sprinkled or dipped, but every grain should be thoroughly wet.

If seed is very smutty it should not be sown, as efficient treatment of it is impossible.

Prevention is better than cure, and it is easier to keep the farm clean if you begin clean.

To make this more effective it was thought advisable to have these things impressed on the minds of the children in the schools in the country, and with this end in view the Education Department very kindly consented to act in co-operation, which they did by sending supplies of the circular to every school in the province, with instructions that they be used supplementary to the text books in those classes which were taking up agriculture. The Education Department also very kindly assisted in wrapping and mailing these.

About the beginning of July the first regular field inspection was made in the districts in which stink weed is found and the general inspection followed immediately after. This was carried on during the months of July and August, and in some cases into September.

When on their rounds last year the inspectors took care to inform all parties interested that stringent measures would be taken another season to enforce The Noxious Weeds Act if necessary, and this year it was considered better in several cases to allow the law to take its course than to go on threatening and allowing neglected farms to become a menace to the surrounding district. This was particularly necessary in that stretch of country south of Leavings and stretching from the Rocky Mountains to the eastern boundary of the province, because there the prevailing weeds are tumbling mustard, tumble weed, Russian thistle and Canada thistle, all of which are plants notorious for producing great quantities of seed and for being easily distributed by the wind. Unless one has been through that country and has been familiar with it for several years, it is difficult to realize how rapidly these weeds are spreading and to what a lamentable extent they already have ob-



tained a footing in the country. The writer spent nearly two months driving throughout that portion of the province in the fall of 1905 and there were not enough Russian thistles and tumbling mustards to be noteworthy. Tumble weed was there in great quantities and this was reported to the Department of Agriculture at Regina. It would seem that these weeds had been introduced in quantities in seed from Kansas during the introduction of the Kansas turkey red wheat to Spring Coulee, because west of that point there are few or none of these plants seen, whereas every farm on the road east is full of both. One place, near Grassy Lake about halfway between Lethbridge and Medicine Hat, the land of which had been sod five weeks before was found to be completely covered with tumbling mustard and Russian thistle, and it would seem that the whole surface of the prairie for a considerable distance is sprinkled with the seeds of those weeds. Another place near Stirling which cost \$10 to clean in the fall of 1906, took no less than \$60 this year. It will thus be seen that it had become highly necessary to take steps to destroy these weeds and employ severe measures if need be. The inspectors in these districts were, therefore, instructed to proceed with severity after due warning had been given, and to strengthen their hands and make the work more effective the writer spent as much time as possible in these districts. In accordance with this policy there were 20 prosecutions, about fourteen of these being in the districts above mentioned. Everyone of these cases but two were won by the department and in the two cases it was proved that the land did not belong to the parties summoned. The fines exacted were not large, ranging from \$1 up to \$10, although in some cases the costs amounted to a considerable sum.

During the year about 19,500 farms were examined and the inspectors worked an average of 27 days, the shortest period being five and the longest 81. Two thousand one hundred and forty-nine notices to destroy weeds were served besides those given verbally and 1,500 men carried out instructions to the satisfaction of the inspectors.

It was found necessary for the department to destroy the weeds on 37 places at a total cost of \$1,405, of which \$263.30 have been refunded, leaving a balance of \$1,141.70 against 23 places. \$57 were paid for destroying weeds on abandoned homesteads and \$25 on Government fireguards. About \$300 of the remainder will probably be readily recoverable as the parties owing it live in Canada. The other amounts are against people living in the United States, speculators, etc.

#### PROSECUTIONS FOR NEGLECTING TO DESTROY NOXIOUS WEEDS.

Three cases against large corporations.

Ten cases against speculators and absentees.

Seven cases against bona fide farmers.

One case against elevators for allowing matter containing seeds of noxious weeds to be outside their premises.

One case against a merchant for having seed containing seeds of noxious weeds in his possession for sale.

Two cases for neglect to destroy weeds were lost as the parties summoned proved non-ownership.

These prosecutions have had a most salutary effect, and after a case or two in a district it was usually fairly easy to persuade people to destroy their weeds, and there will probably be less trouble another year. In all cases the prosecutions for neglect were only

undertaken after repeated warnings, and I would suggest that in future all cases of weeds that readily stray outside the fields they belong to, such as Russian thistle, Canada thistle, tumbling mustard and tumble weed, should be dealt with promptly. Ten days is long enough to allow any man in which to destroy his weeds and it should not be forgotten that the industrious farmer who is doing his best to keep the weeds in check is looking to the department to protect him from his neighbour who, through carelessness or laziness, is allowing his weeds to spread.

I would like to suggest that the names of Blue Lettuce, *Lactuca pulchella*, L., Cockle Bur, *Xanthium strumarium*, L., and Perennial Sow Thistle, *Sonchus arvensis*, D.C., be added to the noxious weeds list.

Blue lettuce is a native of the province and seems to flourish under cultivation and in some places is spreading very rapidly. It is a perennial plant and difficult to get rid of, and as the seeds are readily carried by the wind in the same way as thistle down it is important that its further spread be checked.

Cockle bur has made its appearance in some of the towns in the south and on the banks of some of the irrigation canals. It has already proved itself a very harmful weed in some of the irrigated sections of the United States. I, therefore, believe it will be greatly to the advantage of the province to have it placed on the list of noxious weeds.

Perennial sow thistle has been described as the worst weed that was ever found in any country and it is well worthy of this character. It spreads very rapidly. There are towns in Manitoba where it was almost unknown three years ago and now nearly every farm in the vicinity is overrun with it. Its roots are persistent like those of Canada thistle and the blue lettuce, and it bears a large number of flowers, each of which produces many seeds which are blown over the country by means of a pappus. There are, so far as has been reported, only eight places in the province where this plant is found. There are only small patches at each place, but, as the law stands at present, the department has no power to compel the destruction of these weeds, and it is highly important that this plant be placed on the noxious weeds list to insure its being kept in check.

#### INJURIOUS INSECTS.

I am very pleased to report that there has been no serious attack of injurious insects in any part of the province this year. As was anticipated the parasites on the sugar beet web worm, assisted perhaps by the severity of the winter, seem to have entirely destroyed the larvæ of this pest and there was no attack on the beets reported. The cut worms which were so common in 1906 on the grain fields were almost unheard of this year, and very little damage was done.

ARCH. MITCHELL,  
Chief Inspector of Weeds.



#### 4.—REPORT OF THE CHIEF GAME AND FIRE GUARDIAN.

SIR,—I have the honour to submit herewith my report for the year 1907 in matters pertaining to the protection of game and the prevention of prairie fires.

##### I.—PROTECTION OF GAME.

In making my second annual report it is pleasing to say that the game laws have been enforced during the year better than formerly, although the first three months of the year was a period of inaction to some extent as far as the enforcement of The Game Ordinance of the North-West Territories was concerned owing to the present Game Act being then under discussion and finally adopted by the Legislature. A few minor convictions occurred during this time, the only one of importance personally investigated being a complaint from the settlers of the Medicine Valley regarding the illegal killing of deer by a party who evaded arrest by leaving for the United States. The guardian at the Elk Island Park, whose services were retained during nine months of 1906 and five months of 1907 and who gave his attention to the protection of game not only in the Park but through a large stretch of country surrounding it, has now accepted service under the Dominion Government in connection with the care of the buffalo located at this park. This leaves the district which he formerly attended to without any special protection other than that given by the local guardians and the R.N.W.M.P.

##### GENERAL NOTES ON GAME.

*Ducks* were first observed during the last week in March and they appeared to be very numerous owing to the fact that in many parts the lakes and sloughs were not free from ice on account of the lateness of the season. They consequently congregated in large numbers where any open water was to be found. Later in the season they moved farther north and thus became more evenly distributed. When the season opened on the 23rd of August they did not appear to be as plentiful as was anticipated in the spring. However, in the outlying districts it is claimed that they were as numerous as formerly.

*Prairie Chicken and Partridge.*—Reports received from different parts of the province lead me to believe that in the eastern portions prairie chicken are reasonably plentiful, but in the western parts they are seldom seen. Partridge also continue to be very scarce. The continued scarcity of these birds is due to a greater or less extent to unfavourable breeding seasons as well as to the prevalence of large numbers of coyotes and lynx. These pests no doubt have been feeding on them to a greater extent than formerly owing to a scarcity of rabbits which undoubtedly form the greater part of their diet when it is possible to get them.

There have been complaints from the district through which the line of the G.T.P. is now being built as to the killing of prairie chicken by settlers and others, and one or two prosecutions followed near Holden. It is to be hoped that the lesson will have the neces-

sary effect in that immediate locality, but farther east no protection whatever is given to this most useful and popular game bird at any season of the year. These conditions exist to a greater or less extent all through the eastern portion of the province north of the Red Deer river.

*Black Tailed Deer.*—It is known that black tailed deer have been seen and are becoming more plentiful in many localities where they have not been observed for years.

*Moose and Caribou.*—Moose also are reported plentiful in some districts. This may be due to their having been driven from the north by the great numbers of timber wolves which are reported to exist in that country.

The absence of snow during the open season for deer, moose and caribou prevented the killing of as many as would have occurred otherwise, and although requests were made from different localities to have the season for big game extended until the 15th of December on the chance of a fall of snow which would make stalking much easier and give the sportsman a better chance of securing his limit, it was decided that the season was quite long enough and that the game was entitled to the protection given it by the season.

*Elk.*—No elk have been reported killed during the year but complaints have been made as to the killing of mountain sheep in that portion of the mountains lying directly west of Edmonton and south as far as the Yellow Head Pass.

*Antelope.*—During the first three days of the open season for antelope I visited the country in the vicinity of Brooks Station, and north of the C.P.R., for the purpose of studying conditions in connection with these animals. It was reported that they had suffered greatly during the severe past winter. It was found that they were not as plentiful as formerly. The country in which they range is open and free of brush and their ability to evade the close approach of the hunter, together with a proper enforcement of the present provisions of The Game Act, will give all the protection necessary for a few years at least. Under present conditions there is no reason why they should not increase until such times as they are crowded out by settlement. Many of these animals were driven south of the main line of the C.P.R. by the severe storms of last winter and the closing of the openings in railway fences through this section of the country prevented large numbers of these animals from returning north. Several convictions were secured by game guardians and the R.N.W.M. Police through this district which, if properly followed up, will undoubtedly have a good effect in preventing future infringements of the game laws.

#### INDIANS IN RELATION TO GAME.

The Indians have not been as troublesome as usual owing no doubt to having been watched more closely than formerly. From reports received it appears that they have failed to secure as much game as in former seasons when the snowfall was greater and came earlier in the season. A band of Stoney Indians at Morley appeared in the Pincher Creek district in the month of September apparently for the purpose of going into the mountains for their annual slaughter, but it was reported that instructions were forwarded the R.N.W.M. Police to send them back to the reserve in order that they might put up hay before receiving their treaty money.



When payment of treaty money was made on this reserve on the 9th day of October a personal visit was made to them and with the assistance of Mr. D. McDougall, who thoroughly understands the language as well as the Indian character, the provisions of The Game Act were explained. Later these Indians, to the number of 58, purchased residents' big game licenses before going on their annual hunt, thereby complying with the provisions of section 15 of the Act. This course will be pursued with all the different tribes at the time of treaty payment, as at no other time of the year is it possible to get them all together.

#### GAME A VALUABLE ASSET.

During 1908 the department will be brought face to face with the question of the protection of all kinds of game to the west of Edmonton and especially along the line of railway construction. It will be necessary in order that the game in this district may be protected to provide for the sending of at least two men into that country on permanent patrol. This country being new and sparsely settled to a greater or less extent it would hardly be expected that one man could accomplish much.

Under the protection afforded by a proper enforcement of the game laws it will be possible to preserve the game in the mountains and the foothills for all time, because this is a natural breeding ground for all kinds of game and fur-bearing animals. It will be in the interests of the province to take the necessary steps for their preservation, as this rugged and mountainous country will never be of any value other than for the production of timber, minerals, game and fur-bearing animals. Since the Dominion Government has declared a large section of this country a forest reserve, I would recommend that the hunting and trapping therein of all kinds of animals be prohibited.

The big game, game birds and fur-bearing animals constitute one of the greatest assets of the province and should receive such protection as would of a certainty cause an increase in their numbers. If the game is worth protecting it is worth protecting well. If allowed to decrease the sportsman is liable to turn his attention to useful birds. The extermination of these would result in an increase in the vermin, worms and insects which destroy farm crops and other vegetation. Under proper protection all game will increase, the useful birds will multiply in numbers and the fur-bearing animals be preserved. The natural result will be an increase in farmers' crops on account of the destruction of noxious insects and vermin by the game and useful birds; the trappers' and fur-traders' business will continue to prosper, and indirectly the whole province will benefit thereby.

The systematic protection of game will indirectly prove of great benefit to the farmer and be the means of developing hitherto unthought of resources. Anglers, sportsmen and parties in search of pleasure and health, bring considerable money into a country which has attractions in the form of scenery, mountain climbing, hunting, fishing, and photography for the party with the kodak. They furnish employment of various kinds. They require board and lodging, and this can often be had at farm houses to the mutual advantage of each. This will provide home markets for milk, butter, eggs, poultry, fruit and vegetables, and would render possible the maintenance of improved railroad and telephone service in rural districts.

An illustration of what is being accomplished in this respect in the State of Maine may be of interest. In 1904 the license fees collected from non-residents visiting the state to hunt big game amounted to \$25,365.00. The reports show that 1,942 guides were registered who were employed altogether 87,785 days and earned at a fair estimate \$3.50 per day, or a total of \$307,247.50. In 1902 the Commission of Inland Fisheries and Game made a careful investigation of the numbers of non-residents who visited Maine outside the seaside resorts and the amount of money they spent in the state. These figures showed that in the summer of that year the number of non-resident visitors was 133,885, that their presence gave employment to 1,401 men and boys and to 2,564 women and girls whose wages amounted to \$267,934.00. The amount spent for railway fares and incidental expenses was not reported but the expenditure for board alone amounted to \$1,371,201.00. The permanent financial benefit thus derived by the state from non-resident travel has been summarized by Senator W. P. Frye as follows:

“In all times of business depressions and distress, financial panics and consequent unemployment of labour, so seriously affecting the country, the State of Maine has suffered much less than any other state in the American Union, mostly if not entirely due to the large amount of money left with us by the fishermen, the summer tourist, and the fall hunters, the seeker after change, rest and recreation.”

#### REVENUE FROM GAME.

The people of this province should benefit by the protection of game not only indirectly but directly by insisting on a revenue from those sources which are at present being monopolized by a very small percentage of the population. In this connection it is suggested that a license be imposed on every person who hunts, traps, or deals in the flesh or skins of any game or fur-bearing animal whether protected or not. At present 95% of the people who derive no direct benefit from the protection of game and fur-bearing animals are paying 95% of the cost of protection, while 5% of the people are receiving all the benefit from the protection of game and fur-bearing animals and bearing only 5% of the cost of the same. It is only of late years that means have been adopted whereby the cost of protecting game shall be borne by those benefited thereby. Only a very small percentage of the population of any country devote any time to hunting and the great majority, therefore, object to having public funds expended, to any extent, for this purpose. The opposition to the imposition of a hunter's license, therefore, comes in all cases from those who are benefitting by game protection in order that they may enjoy themselves at the expense of the whole country. The game should be considered as one of the assets of the country and should not be killed or taken unless the party so doing has contributed a fair sum for the privilege, and in order that it be not exterminated this privilege should be restricted accordingly.

What is being done in other places towards securing a revenue from game and fur-bearing animals will no doubt be of interest. The State of Maine derives \$60,000.00 yearly from the sale of licenses to fur dealers and trappers. The following table will give some idea of the direct revenue from game in a number of States of the Union and in the Provinces of Canada, as well as the salaries paid game guardians:



STATE OR PROV.	VOTE FOR PROTECTION OF GAME			REVENUE			SALARIES
	1905	1906	1907	1905	1906	1907	
Manitoba.....				\$3,950	\$6,476		
N. Brunswick...				7,642			
Ontario.....		\$13,930		11,190	25,620		
Saskatchewan...			\$5,000			\$ 500	
Alberta.....		2,000	2,200	237	378	3,948½	
Colorado.....			20,871	19,364		35,115	\$1,800
Idaho.....				15,709	18,705		1,800
Illinois.....				120,873			2,500
Indiana.....				13,200			1,200
Kansas.....			10,000	42,000			1,500
Michigan.....				22,317			2,000
Minnesota.....	\$45,790	49,609	35,000	15,861	22,233	21,000	2,500
Missouri.....				47,746			2,000
Montana.....				30,087			2,400
Nebraska.....			20,652	5,202		17,262	1,500
Oregon.....				19,856		21,891	1,200
Washington....				26,271	39,736		2,000
Wisconsin.....			100,000	73,474		100,000	1,800
Wyoming.....		10,641		4,694	10,577		1,500
California.....	53,913	57,061		53,913	57,061	115,000	
Maine.....			60,000			*60,000	1,000 to 2,000
Massachusetts..			52,225				
Vermont.....			9,600			12,000	1,000
Ohio.....			18,000			300	1,500
New York.....			12,000			27,000	5,000
Alabama.....							2,500

\*This revenue is derived from fur-bearing animals.

#### NUMBER AND VALUE OF THE ANNUAL FUR CATCH.

The following is a table showing the number of skins of fur-bearing animals, bought, sold, and bartered for in the province during the year ending May 31st, 1907. These figures were compiled from returns made by the dealers throughout the province as required under section 31 of The Game Act. These figures are not as complete as they would have been had the dealers known beforehand that this return would be necessary. It was new legislation and the Act was assented to on March 15th, 1907, just three months before the returns were due at this office. No doubt the dealers, now they are aware that it is necessary to make these returns yearly, will keep a more complete record.

## A RETURN SHOWING THE NUMBER AND VALUE OF THE FUR CATCH.

	FROM SMALL DEALERS			FROM WHOLESALE DEALERS & EXPORTERS	
	No. of SKINS	AVERAGE VALUE	TOTAL VALUE	No. of SKINS	TOTAL VALUE
Badger.....	595	\$ .83	\$ 494.05	310	.....
Bear, Black.....	285	12.44	3,545.86	1,660	.....
Bear, Brown.....	83	7.24	601.50	342	.....
Bear, Grizzly.....	28	19.00	532.00	127	.....
Bear, Cub.....	44	5.63	245.00	100	.....
Beaver.....	750	5.00	3,750.00	2,542	.....
Coyote.....	11,502	1.71	19,692.65	5,262	.....
Fisher.....	44	6.03	265.50	351	.....
Fox, Cross.....	352	3.18	1,119.50	1,674	.....
Fox, Red.....	1,111	4.16	4,631.75	4,662	.....
Fox, Silver.....	216	115.31	24,909.00	411	.....
Lynx.....	12,511	5.82	72,911.80	42,669	.....
Marten.....	11,273	9.72	109,617.90	12,224	.....
Otter.....	472	8.69	4,105.50	423	.....
Mink.....	8,053	5.05	40,683.15	7,912	.....
Muskrat.....	159,661	.19	30,117.95	119,833	.....
Squirrel.....	1	.20	.20	.....	.....
Skunk.....	4,189	.74	3,117.60	3,914	.....
Weasel.....	3,256	.76	2,495.28	5,491	.....
Wolverine.....	451	2.57	1,159.65	446	.....
Wolf.....	65	6.95	452.00	922	.....
Deer.....	357	2.51	897.50	30	.....
Moose.....	17	9.76	166.00	.....	.....
Elk.....	4	5.00	20.00	.....	.....
			\$325,531.34		\$564,424.08

Grand Total.....\$889,955.42.

## BRANDING GAME HEADS.

The first work under the new Game Act was that dealing with the branding of game heads as required under section 11. This was commenced in the month of May and applications to have heads branded are being received continually. The provision which you were good enough to make for a refund of the fees for branding game heads acquired previous to the passing of the present Act has proven to be a good and just move, as it thereby prevented the imposition of a hardship on persons who had acquired game heads previous to the 15th of March, 1907, the date on which the provisions of the new Act came into force. The total number of heads branded during the eight months of 1907 was 611. These were made up as follows:

Mountain sheep.....	216	Mountain goats.....	62
Elk.....	41	Moose.....	39
Caribou.....	16	Deer.....	142
Antelope.....	95		

## LICENSES ISSUED.

Owing to the absence of snow during the season for big game there were not as many licenses sold as would have been the case otherwise. From reports which have been received up to and including the 31st day of December last there have been issued as follows:



Residents' big game licenses.....	446
Trappers' licenses.....	6
Guides' licenses.....	6
Game dealers' licenses.....	12
Permits to export.....	15
General game licenses.....	4
Guests' permits.....	25
Camp helpers' licenses.....	1
Permits to collect.....	6

Subsection 2 of Section 19 of The Game Act provides as follows:

"Each resident to whom a big game license shall have been issued in any year shall, immediately after the close of the open season for the killing or taking of the animals mentioned in Section 4 of this Act, return the license issued to him to the Department of Agriculture accompanied by an affidavit sworn before a justice of the peace, or a commissioner for taking affidavits, or a game guardian, showing the number of animals killed or taken by him during the period mentioned in such license."

The returns received under this section show that the following big game has been killed by residents who purchased big game licenses:

Deer.....	59	Antelope.....	49
Moose.....	14		

As a great number of those who purchased residents' big game licenses have failed to return them with the necessary affidavit, the above figures will undoubtedly show a small proportion only of the number of animals killed. As the requirements of this section become more generally known these returns will be forwarded more promptly. It will then be possible to form some idea as to the amount of game being killed each year.

#### MONEYS COLLECTED.

The amount of money collected under The Game Act during 1907 is shown as follows:

Branding of 611 game heads.....	\$2,158.00
Permits to collect.....	65.00
Permits to export.....	171.00
Game dealers' licenses.....	120.00
Camp helpers' licenses.....	2.50
Guides' licenses.....	30.00
Trappers' licenses.....	40.00
General game licenses.....	93.00
Residents' big game licenses.....	1,115.00
From fines imposed since June 1, 1907. ....	154.00
Total.....	\$3,948.50

#### POWERS AND DUTIES OF A GAME GUARDIAN.

The protection of game in the province is not as satisfactory as I would like to see it, because of the fact that game guardians receive no remuneration for their services. They are expected to give their services free of charge for the protection of one of the assets of the province. They are not only subjected to a loss of time while investigating complaints, but loss of money as well while paying their own expenses in connection with prosecutions and postage. Other voluntary officers of the Government are furnished every year with a book or periodical, but the game guardian receives

nothing. In the event of it being necessary to report or prosecute his neighbour for infringing the provisions of The Game Act he renders himself liable to loss by destruction of property. In many cases guardians are even afraid to remonstrate with friends or neighbours for fear of being burned out. This is not as it should be, as every portion of the province where game is to be found should be patrolled by guardians appointed specially for the purpose and who should not be subject to any local influence.

In order that the situation may be more clearly understood the following remarks on the responsibilities, powers and duties of game guardians are given:

The office of "game guardian" (Western Canada), "game warden" (Eastern Canada and parts of the United States), or "game commissioner," "game inspector," or "game protector," or whatever name may be used by any state or province to designate the officer or officers whose duty it is to enforce the laws framed for the protection of game, is entirely a matter of choice. The term "game guardian" has been adopted by the Provinces of Alberta, Saskatchewan and Manitoba, and as the Dominion Government designates certain of its fishery officers by the term fishery guardians, I shall confine myself to this term. The enforcement of all laws pertaining to the protection of game and fish was considered for many years to be the duty of police officers, constables and sheriffs. This system did not effectively protect the game hence the creation of the office of game guardian.

The first record of the appointment of a special officer for the protection of game and for the enforcement of game laws in America appears to have been made by the legislature of Maine in 1852 when a moose warden was appointed. Between 1878 and 1888 ten states created a state office or department charged with the enforcement of the game laws. Since then the progress has been very rapid in this respect and to-day there is scarcely a State in the Union and not a Province of Canada but what have special officers to enforce their game laws.

In the United States those officers who have been appointed for the purpose of enforcing the laws respecting the protection of game command the same respect and are on the same footing as other officers of the state. The salary attached to the position of State warden ranges from \$1,000 to \$5,000, and of deputies from voluntary service to \$1,500 a year with expenses. A portion of, or all of, the fines imposed when a conviction takes place is the only remuneration given to wardens in many states.

In this province under The Game Ordinance of the N.W.T. the only remuneration given to guardians was to allow them half the fine if applied for by them before the close of the trial. This was discontinued by the new Game Act of the Legislature of 1907 and guardians are now expected to give their services without any remuneration other than the constable fees to which they are entitled in the event of a conviction being secured, otherwise they are often out of pocket as well as loss of time. The duties of a game guardian are in many respects very similar to those of other preventive officers. They differ in one respect however,—the guardian must not wait for others to discover offences against the game laws but must take action himself, must search out violations, find the evidence where-with to convict, and institute proceedings. This is one of the most important reasons why there should be a special officer for the enforcement of the game laws.



Under conditions which exist in many places it is necessary that shipments of game shall be checked. This means much night work which becomes very arduous. Many devices are employed by shippers who wish to evade the game laws and prevent detection. It is, therefore, often necessary for the guardian to play the part of detective in order to get the evidence necessary to convict and this means that he is subjected to all the perils of such work. Where the sale of game is prohibited without a license or otherwise it is necessary that the guardian periodically inspect restaurants, hotels run on the European plan and butcher shops. He must also check up taxidermists, issue hunting licenses and permits, keep account of same, and see that all parties found hunting have the necessary licenses or permits. The killing of dogs found running deer wherever this is unlawful; the destruction of traps, nets, snares, and spring guns, where unlawfully set or placed for the destruction of game; the serving of warrants, summoning of witnesses, making arrests when found necessary so to do, constitute a few of the many duties which fall to the lot of the game guardian. In many situations the guardian's powers are too limited to give the protection necessary for the preservation of game. To make the game laws effective he will necessarily at times have to take action not authorized by law, but in every case he must use great discretion and exercise good judgment in the discharge of his duty.

A guardian who realizes the responsibility of his office can do much to make the protection of game popular amongst the people by showing them the necessity for protection as well as the advantages to be derived therefrom. In order to accomplish this he must move around amongst people, hearing complaints, giving advice, discussing the subject of protection with them and prosecuting parties found hunting on enclosed lands without the necessary permission. The perils incident to the work of the game guardian may be considered as consisting of exposure to inclement weather, travelling through unsettled portions of the country, mountain climbing and snow-slides in mountainous country. Cases have also occurred where guardians have been shot while in the discharge of their duties by unscrupulous persons infringing the game laws. In Alberta the greatest danger in this respect is where the guardians come in contact with the natives or foreigners who make a practice of shooting at every living thing they may come across providing they have a gun with them.

At the beginning of 1907 there were 218 game guardians and on January 1st, 1908, there are 251. This makes an increase of 33 over 1906. Appended is a list of the game guardians during 1907, arranged according to constituencies as shown from their post office addresses:

#### GAME GUARDIANS BY CONSTITUENCIES.

##### *Banff.*

Johnstone, Geo. W. ....	Cochrane.
Reid, Geo. A. ....	Cochrane.
Meiklejon, R. W. ....	Cochrane.
Goddard, G. E. ....	Cochrane.
Beveredge, S. E. ....	Springbank.
Fraser, J. A. W. ....	Jumping Pond.
Skinner, D. W. ....	Lochend.
Bell, E. L. ....	Lochend.
McDougall, D. ....	Morley.
Fraser, A. C. ....	Springbank.
Hutchinson, W. ....	Big Hill Creek, Cochrane.
Baptie, Adam M. ....	Exshaw.

*Calgary.*

Wheeler, A. O.	Calgary.
Graham, G. M.	Calgary.
Barnard-Harvey, B. C.	Calgary.
Robinson, R. G.	Calgary.
Brodie, Neil.	Calgary.

*Cardston.*

Caldwell, A. A.	Caldwell.
Sloan, Jno.	Kimball.

*Edmonton.*

Wilcox, C.	Edmonton.
Hayes, J. O'Neill	Edmonton.
Kennedy, Jno.	Edmonton.
Mercer, J. B.	Edmonton.
Robertson, W. S.	Edmonton.
Tough, Jas.	Edmonton.
Cooper, W. H.	Edmonton.
Bulmer, Geo.	Edmonton.
Carpenter, J. V. E.	Edmonton.
McInnes, Jno.	Edmonton.
Blackburn, B. F.	Edmonton.
Rudd, H. E.	Edmonton.
Fielders, Jno.	Edmonton.

*Gleichen.*

Davey, W. C.	Airdrie.
McLeod, Geo.	Crossfield.
Oswald, J. C.	Crossfield.
Martin, Dan., Jr.	Rosebud Creek.
Edie, Peter.	Brooks Station.
Bunny, B. H.	Gleichen.
Norton-Taylor, S.	Gleichen.
Brereton, David.	Red Deer, Gleichen.
Wilson, J. A.	Red Deer, Gleichen.
McKay, D. J.	Crossfield.

*High River.*

Grant, Jno. A.	Lineham.
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*Innisfail.*

Archer, F. W.	Innisfail.
Campbell, D. W.	Innisfail.
Robinson, Edmund.	Stauffer, via Innisfail.
Jensen, Jas.	Knee Hill Valley.
Hunford, B.	Markerville.
Scott, W. L.	Markerville.
Milligan, R.	Pine Lake.
Thomson, C.	Red Lodge.
Thomson, Evan.	Red Lodge.
Chauny, Count L. M. de.	Innisfail.
Arnold, Sam.	Bowden.
Henry, F. J.	Pine Creek.
Robinson, W. H.	Little Red Deer, Innisfail.

*Lacombe.*

McPherson, W. B., J.P.	Bentley.
Pinnell, Chas.	Alix.
Parlby, Walter.	Alix.
Godfrey, Sidney.	Lacombe.
Whitworth, C. H.	Bentley.
Waghorn, W.	Blackfalds.
Capron, Jos.	Blackfalds.
Kendall, J. S.	Red Willow.
Critchely, H. D.	Red Willow.
Grose, J. C.	Erskine.
Triplett, J. E.	Forshee.



Brereton, T. A.	Valley City.
Stephens, Fred.	Lacombe.
Webb, Jas.	Liberal.
Barrett, E. W.	Stettler.
Wilson, G. S.	Stettler.
Brady, C. J.	Flagstaff.
Ferguson, R. J.	Stettler.
Boyd, A. J.	Lacombe.
Smith, Wm.	Lockart.
Carter, J. R.	Morningside.
Pierre de Sonzy.	Talbot, via Stettler.
Larose, Geo.	Stettler.
Carritt, J. C.	Bentley.
Gray, W. B., J.P.	Stettler.
Kent, Jas. P.	Lacombe.

*Leduc.*

Turner, J. W.	Leduc.
Clifford, F.	Conjuring Creek.
Peterson, Nels.	Millet.
Green, F. B.	Bonnie Glen.
Alpaugh, E.	Conjuring Creek.
Young, R. C.	Millet.
Pithouse, H. G.	New Sarepta.
Bush, A. R.	Leduc.
McCauley, D.	Leduc.
Sanders, Nels.	Ohrnville.
Blades, W. F.	Leduc.
Erwin, Jonah.	Leduc.
O'Mara, E.	O'Mara.
Blackwood, Chas.	Telfordville.
Hudson, Wm.	Buford.

*Lethbridge.*

Case, H.	Lethbridge.
Withers, H. P.	Lethbridge.

*Macleod.*

Lyndon, Wm.	Lyndon.
Roberts, P. J.	Macleod.
Bagley, Travis.	Meadow Creek.
Pearson, G.	Stand Off.

*Medicine Hat.*

Briggs, Chas.	Graburn.
Rutherford, Wm.	Strathmartin.
Murray, Geo.	Seven Persons.
Robinson, Jas.	Josephsburg.
Bray, J. H. G.	Medicine Hat.

*Peace River.*

McDonald, Duncan.	Dunvegan.
Gaudet, John P.	Peace River Crossing.
English, W. S. O.	Spirit River.
Monkman, Alex.	Grand Prairie.
Jones, Robt.	Fort Vermilion.
Lambert, Wm. John.	Fort Vermilion.

*Pincher Creek.*

Shannon, Wesley.	Twin Butte.
Hillier, Ernest.	Twin Butte.
Hughson, A.	Lundbrek.
Miller, C. B.	Cowley.
Wilson, T. G.	Livingstone.
Porter, Geo. E.	Livingstone.
Garrault, L.	Pincher Creek.
Jackson, G. A.	Blairmore.
Brown, Jno.	Pincher Creek.
Clarkson, R. B.	Pincher Creek.

Riviere, H.....	Pincher Creek.
Willock, D. F. W.....	Pincher Creek.
Brown, J. G.....	Mountain View.
Swinney, J. L. T.....	Yarrow.

*Ponoka.*

Stewart, P. R.....	Earlville.
Nordgen, E.....	Highland Park.
Wilcher, J. G.....	Lewisville.
Donaldson, N. A.....	Manfred.
Wells, W. E.....	Whitebrush.
Fleming, Louis.....	Ponoka.
Fraser, A. B.....	Ponoka.
Shafft, W. M.....	Ponoka.
Craig, J. J.....	Bluff Centre.

*Red Deer.*

Gray, E.....	Hillsdown.
Mellor, C. P.....	Evarts.
Bell, R. Morton.....	Trenville.
Lonsmen, Gus.....	Mayville.
Schnoor, Jno.....	Red Deer.
Cottingham, W. H.....	Red Deer.
Bleay, Richard.....	Red Deer.
Fisher, F. B.....	Red Deer.
Wallace, Joseph.....	Red Deer.
Harrington, W. W.....	Ewing.

*Rosebud.*

McIntyre, Wm.....	Didsbury.
Graham, Wm.....	Dog Pound.
Byron, Thos.....	Eagle Hill (Olds).
Distman, C.....	Trochu Valley.
McLeod, Jno.....	Sunny Slope.
Thomson, E. Vernon.....	Dog Pound.
Scott, Robt.....	Carstairs.

*St. Albert.*

Edgson, Jno. A.....	Edison.
Mennier, T.....	Lac la Nonne, via St. Albert.
Clarke, Thos. A.....	Pembina.
Cerstract, Camille.....	Villeneuve.
Kelly, Patrick.....	St. Albert.
Noyes, Wallace.....	St. Albert.
Fitzgerald, Wm.....	St. Albert.
MacGillycuddy, V. J.....	St. Albert.
Lucas, Arthur.....	Clyde.
Cosens, F.....	Sion.
Najeau, Octave.....	Lac la Nonne, Sion P.O.

*Stoney Plain.*

Hagen, S. C.....	Winterburn.
Hoffman, M. L.....	Mewassin.
McDonald, Dan.....	Mewassin.
Bennett, Jno.....	Mewassin.
Pegrum, Frank.....	Wabamun.
White, Henry.....	Wabamun.
Shields, W. K.....	Wabamun.
Butchart, B.....	Inga.
Groat, E. A.....	Spruce Grove.
Sutherland, G.....	Spruce Grove.
Bristow, W.....	Spruce Grove.
DeBord, J. W.....	Stony Plain.
Musselman, D.....	Stony Plain.
Deans, Sam.....	Mewassin.
Kuhl, Henry.....	Worley.
Maloney, J. V.....	Lac Ste. Anne.



*Sturgeon.*

Gibbons, W. R.	Astleyville.
Mason, Wm.	Bon Accord.
Florence, A. F.	Bon Accord.
Trotter, J. R.	Sturgeonville.
Milligan, Jno.	New Lunnon.
Russell, Jno.	Athabasca Landing.
Pratt, G. T.	Lamoureux.
McLaughlin, C.	Namao.
June, Robt.	Namao.
Bailey, R.	Namao.
Edmonton, Jno.	Two Lakes.
Whitelay, Wm. E.	Landing Road, Athabasca Ldg.

*Strathcona.*

Quebec, H. M.	Clover Bar.
Ellett, F. S.	Ellerslie.
Inkster, Jas.	Strathcona.
Currie, Chas.	Strathcona.
Grummett, D.	Cooking Lake.
Stephens, W. H.	Strathcona.
Miller, M. L.	Strathcona.
McLeod, A. G.	Strathcona.
Whyte, Basil.	Strathcona.
Smith, J. E.	Strathcona.

*Vermilion.*

Gully, Lacy	Vegreville.
Trimble, Jno.	Vegreville.
Coxford, A. W.	Vegreville.
Stonehocker, J.	Lavoy.
Armitage, W. H.	Mannville.
Morris, H. G.	Mannville.
McLean, Archie.	Mannville.
West, F. V.	Vermilion.
Graham, J.	Vermilion.
Loades, G. A.	Viking.
Moody, A. R.	Beaver Lake.
McKenzie, E. H.	Warwick.
Lyn, Percy.	Warwick.
McFarlane, D.	Warwick.
McDougall, J. A.	Gilpin.
Roberge, C. C.	Logan.
Hallberg, E.	Ross Creek.
Hunt, A. W.	Tofield.
Lavoy, Joseph.	Lavoy.
Kennepp, L. H.	Viking.
Stewart, J. A.	Beaver Lake.
Gladena, Augustus.	Tofield.
Spilstead, Chas.	Tofield.
Norn, Joseph A.	Logan.
Mohler, Wm.	Round Hill.
Heathcote, Jos.	Kitseoty.
Cockson, Geo., Jr.	Tofield.
Philbrick, D. L.	Mannville.

*Victoria.*

Warson, Andrew.	Chipman.
Kreps, John.	Fort Saskatchewan.
Simmons, E.	Fort Saskatchewan.
Shandro, A. S.	Shandro.
Calvert, S. W.	Chipman.
Hunter, Jas.	Delnorte.
Vanarsdalen, N.	Vermilion Valley.

*Wetaskiwin.*

Wilson, C. T.	Camrose.
Logan, R. W.	Camrose.
Fleming, A. W.	Heather Brae.
Price, Jas.	Heather Brae.
McDonald, J. S.	Sedgewick.
Hawkins, R. T.	Wetaskiwin.
Charrington, R. R.	Wetaskiwin.
Dickson, A. R.	Wetaskiwin.
Barnard, A. H.	Daysland.
Wood, A. G.	Westerose.
Swanson, C. H.	Wetaskiwin.
Burnham, Asa A.	Prague.
Dempsey, J. G.	Heather Brae.

## II.—THE PREVENTION OF PRAIRIE FIRES.

I have the honour to submit herewith the first annual report in connection with the enforcement of The Prairie Fires Ordinance. On the 31st day of December, 1907, 157 fire guardians had been appointed to enforce the provisions of the Ordinances. These guardians have been specially appointed and are expected to give their services gratis whenever an infringement of the same is brought to their attention and to call out men to fight prairie fires whenever it is necessary to do so. Like the game guardians, the only consideration they receive is the fees they are entitled to as constables in the event of their securing a conviction. This any one can readily see must prove unsatisfactory. Provision should be made for remunerating them while in the active discharge of their duty. In addition to the fire guardians regularly appointed all justices of the peace, councillors of local improvement districts, and members of the Royal North-West Mounted Police force are *ex officio* fire guardians.

Previous to June 1st, 1907, very few, if any, convictions in which a penalty was imposed occurred. During the year convictions were secured at or in the vicinity of the following places:

*June.*—Stettler, Gleichen, Harmattan, Lloydminster, Cochrane, and High River (2), the last named place being the only point at which more than one conviction was secured during this month.

*July.*—Whitefish Lake, Evarts, Content, Andrew (2), and Cochrane.

*August.*—One at Medicine Hat.

*September.*—One at Three Hills.

*October.*—Vermilion and Medicine Hat one each.

*November.*—Gleichen, Markerville (2), Medicine Hat, Lesser Slave Lake (2), and Three Hills.

*December.*—Markerville, Lethbridge (3), Nanton, Trenville, Holden and Pincher Creek.

This makes in all thirty-three convictions with penalties [as follows:

One of \$100.00, one of \$50.00, two of \$30.00, nineteen of \$25.00, one of \$10.00, one of \$8.00, one of \$7.00, six of \$5.00 and one of \$1.00 each, making a total of \$741.00. Twenty-two dollars and forty-five cents would, therefore, be the average fine imposed.

### RAILWAY FIREGUARDS.

In the early part of November information was laid against the Canadian Northern Railway for setting fire a few miles east



of Vermilion. This case was tried by Magistrate Henny at Vermilion, and a fine of two hundred dollars and costs imposed. Notice of appeal was immediately given by the defence, the result of which will no doubt be watched with interest by the settlers along this line of railway.

The regulations passed by the Board of Railway Commissioners on the 4th day of July, 1907, and known as Order No. 3245, will no doubt prove beneficial in the prairie country, by compelling the railway companies to complete and maintain properly constructed fireguards along their line of railway.

That portion of the regulations relating to fireguards reads as follows:

"9. Every railway company subject to the legislative authority of the Parliament of Canada operating a railway by the power of steam, in the Province of Alberta, shall establish and maintain along the line of railway where the same passes through prairie country in the said province, on each side of such line of railway and of not less than three hundred feet in width from the centre of the railway, a good and sufficient fireguard to be made by plowing the land to the extent of not less than sixteen feet in width on the side of the fireguard farthest from the railway, and by burning or otherwise freeing from inflammable materials the spaces between such plowing and such line of railway.

"10. Every such company shall, at all times, keep such fireguards free from weeds and other inflammable material, and in such condition as not to allow fire to spread thereon and therefrom through coals, cinders or sparks falling from or emitted from its railway.

"11. Provided, that no such railway company shall be bound to enter upon the lands of another for any of the purposes aforesaid without the consent of the owner of the said lands, unless such company can lawfully do so without being liable to make compensation therefor; provided, also, that the said railway companies shall not be required to establish and maintain such fireguards where the nature of the country renders it impossible to do so, or where the doing so would involve serious loss and damage to property,—all such places and portions of line or lines to be specially described and reported to the Board.

"12. The fireguard herein provided for to be completed on or before the first day of September of the present year, and after this year on or before the first day of August in each year; and in other respects these regulations shall take effect and be operative on and from the first day of September next.

"13. These regulations shall not have effect during the months of December, January, February and March in any year.

"14. Every railway company subject to the legislative authority of the Parliament of Canada disobeying or failing to comply with the provisions of these regulations shall be liable to a penalty of one hundred dollars for every such disobedience or failure to comply with the provisions of these regulations respecting fireguards."

I would recommend that copies of this order be printed and placed in the hands of all fire guardians, with instructions to see that its provisions are complied with. The grading of roads throughout the country is proving of vast benefit not only for purposes of transit, but as effective fireguards.

The following is a list of the fire guardians in the province:

#### FIRE GUARDIANS ARRANGED BY CONSTITUENCIES.

##### *Banff.*

Brewster, William.....	Banff.
Elliott, Walter B.....	Cochrane.
Fraser, J. A. W.....	Jumping Pond.
Fay, Herbert.....	Cochrane.
Goddard, G. E.....	Mitford.
McPhee, M.....	Beaver Dam (Cochrane).
McCorkell, John F.....	Morley.
Reid, George A.....	Cochrane.
Mickle, Chas. W.....	Spring Bank.

*Cardston.*

Ashe, Percy G.	Coutts.
Shaw, V. S.	Cardston.
McCarty, C.	Spring Coulee.

*Calgary.*

Carter, D.	Calgary.
Campbell, Dan W.	Calgary.
Johnston, George.	Calgary.
Moss, Sidney H.	Calgary.
Merrick, George.	Calgary.
Moss, Walter.	Calgary.
McIntosh, J. G.	Calgary.
McIntyre, R. W.	Calgary.
Wheeler, A. C.	Calgary.
Wooley-Dodd, A. G.	Calgary.
Woollians, W. D.	Calgary.

*Edmonton.*

Mitchell, Archibald.	Edmonton.
Tough, James.	Edmonton.

*Gleichen.*

Clarke, John, Jr.	Crowfoot.
Colquhoun, O. L.	Gleichen.
Hardwick, Douglas.	Snake Valley (Gleichen).
Martin, Daniel, Sr.	Gleichen.
McKinnon, L.	Langdon.
Stephenson, Johnston.	Airdrie.
Strange, Alex.	Gleichen.
Scott, Harry.	Gleichen.
Sutherland, James A.	Crossfield.
Urquhart, William.	Crossfield.
Coxford, W. H.	Airdrie.
Hicks, Thomas.	Lathom.
Maloney, A. S.	Dunbow.
Nixon, R. J.	Crossfield.

*High River.*

Holmes, W. E.	High River.
Thorn, W. B.	High River.
Bannister, A. E.	Davisburg.
Carle, George H. T.	Pekisko.
Gervais, Romaine.	Hicksburg.
Narrish, J. D.	Nanton.

*Innisfail.*

Alfordk, R. P.	Pine Lake.
Bitton, William Shirley.	Innisfail.
Collins, Harry F.	Pine Lake.
Duncan, George.	Innisfail.
Ellis, George W.	Innisfail.
Gaetz, Fred W.	Pine Lake.
Milligan, Robt.	Innisfail.
Redpath, George.	Pine Lake.
Wyndham, W. T.	Pine Lake.
Chauney, Count L. M. du.	Innisfail.
Wynn, Robert.	Knee Hill Valley.
Wood, Chas. T.	Red Lodge.

*Lacombe.*

Burns, Ed.	Lamerton.
Burgess, Joseph.	Lamerton.
Capron, Joseph.	Blackfalds.
Grose, W. E.	Valley City.
Hilstad, Carl.	Bentley.
Paisley, S. W.	Canyon.
Pinnell, Chas.	Alix.



Patterson, George W.	Red Willow.
Richards, A. T.	Lacombe.
Tees, James.	Valley City.
Walters, James L.	Lacombe.
Whiteside, F. H.	Lamerton.
Tees, W. E.	Tees.
Hickling, Horace.	Alix.

*Leduc.*

Blocker, William.	Leduc.
Bradner, Henry.	Leduc.
Clifford, Frank.	Conjuring Creek.
Fetherstone, S. W.	Leduc.
Hodgson, Francis J.	Beaumont.
Johnston, S. H.	Beaumont.
Mortimer, Charles.	Leduc.
McEwen, J.	Conjuring Creek.
Sanders, Nels A.	Buford.

*Red Deer.*

Fleming, George.	Penhold.
Gaetz, Fred.	Red Deer.
Hoskin, Thomas.	Red Deer.
Martin, Angus.	Red Deer.
McKuchney, Mr.	Red Deer.
Reinholt, J. F.	Red Deer.
Thompson, W. A.	Red Deer.
Wilson, John.	Evarts.
Fisk, Robert E.	Hillsdown.
Lensman, Gus.	Mayville.
Morton-Bell, R.	Trenville.

*Rosebud.*

Distman, C.	Olds.
Kembery, Raymond A.	Olds.
Lewis, Edwin.	Olds.
Shantz, J. B.	Didsbury.
Bell, E.	Bradborne.
Graham, William.	Bradborne.
Evan, Arthur.	Three Hills.
Macleod, John.	Sunny Slope.

*Strathcona.*

Ellet, Charles C.	Strathcona.
McAllister, George.	Strathcona.
Townsend, Ed.	Strathcona.

*Sturgeon.*

Gibbons, W. R.	Astleyville.
Thompson, Lewis.	Pakan.

*Stony Plain.*

McDonald, J. L.	Stony Plain.
Steffler, Ed.	Spruce Grove.
Knapp, H. H.	Winterburn.
Musselman, D.	Onaway.
Mills, Charles.	Inga.
White, H.	Wabamun.

*St. Albert.*

Verstracte, Camille.	Villeneuve.
Hughson, W. S.	Manawan, via Independence.
Hall, Thomas.	Manawan, via Independence.

*Lethbridge.*

Depew, Warren.	Raymond.
Dixon, James.	Lethbridge.
Duff, Duncan.	Grassy Lake.

Fuller, James Dixon.....	Lethbridge.
Furman, John.....	Grassy Lake.
Kenny, E.....	Lethbridge.
Kennedy, Edward.....	Lethbridge.
Link, Adam.....	Lethbridge.
Nash, Alfred C.....	Lethbridge.
Otott, C. H.....	Lethbridge.
Slawson, D. K.....	Grassy Lake.
Steed, Frank O.....	Stirling.
Cox, E.....	Grassy Lake.

*Medicine Hat.*

Borthwick, William.....	Medicine Hat.
Brightland, E. W.....	Talbot.
Eastmead, W.....	Talbot.
Hargrave, W. H.....	Walsh.
Markwick, George.....	Medicine Hat.
McLaughlin, J. D.....	Medicine Hat.

*Macleod.*

Cochrane, William F.....	Macleod.
Gardner, W. E.....	Macleod.
Maryfield, Fred T.....	Macleod.
Lyndon, W. A.....	Lyndon.

*Pincher Creek.*

Connelly, Alf. T.....	Pincher Creek.
Smith, H. J.....	Pincher Creek.
Godsall, F. W.....	Cowley.
Busneau, James B.....	Yarrow.
Eddy, W. T.....	Cowley.

*Ponoka.*

Johnston, Charles.....	Edberg.
Tyner, R. E.....	Ferry Bank (Ponoka).
Barber, John.....	Spring Lake.
Bowie, George.....	Ferry Point.

*Victoria.*

Bevington, Charles E.....	Fort Saskatchewan.
Belcher, Henry.....	Wostok.
Borwick, John.....	Whitford.
Dzivenka, Joseph.....	Wostok.
Halkow, John.....	Wostok.
Simmons, W. L.....	Fort Saskatchewan.
McCaul, David.....	Star.
Richardson, Silas.....	Whitford.

*Vermilion.*

Weir, A. M.....	Mannville.
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*Wetaskiwin.*

Hayes, J. A. O'Neil.....	Wetaskiwin.
Ravensburg, O. C.....	Wetaskiwin.
Ropper, Ernest.....	Bittern Lake.

■ In the past the spring fires have proven to be very destructive to game, and especially so to prairie chickens and other birds which build their nests on the ground. This is no doubt the cause, to some extent, for the present scarcity of these birds.

BENJ. LAWTON,

Chief Game and Fire Guardian.



### 5.—REPORT OF POULTRY SUPERINTENDENT.

SIR,—I beg to submit herewith a report of the work done by the Poultry Branch during the year ending January 31st, 1907.

The work of the branch may be divided into three parts: office work, educational work, and poultry fattening.

#### OFFICE WORK.

During the year this part of the work has increased very rapidly and some idea of the volume of enquiries about poultry raising may be gathered when it is known that 1,143 letters were received and 1,342 sent out. The fact that the department has an officer in charge of the work relating to poultry raising encourages those interested to write, making all kinds of enquiries and to ask for all manner of advice, and no doubt a great amount of good is done in this way.

#### EDUCATIONAL WORK.

When not otherwise engaged the writer attends farmers' institute meetings throughout the province, giving addresses on poultry subjects and advising with farmers both before and after the meetings. Much more can be accomplished through a personal talk with one interested in poultry than by any amount of correspondence.

The writer attended a number of meetings held in connection with the regular institute meetings and other meetings specially arranged at which educational work was undertaken advising the best methods to adopt in many departments of poultry work. Regular meetings for this purpose were held at Lacombe, Calgary, Edmonton, Carstairs, Didsbury, Innisfail, Red Deer, Blackfalds, Ponoka, Leduc, Daysland, Spring Lake, Camrose, Bawlf, Rosenroll, Wetaskiwin, Stettler, Content, Lamerton, Tees, Valley City and Ferry Bank. At several of these places additional meetings were held at the request of persons interested and desirous of same. Further educational and demonstrative meetings were held in connection with the travelling dairy throughout the Medicine Hat district and at points along the C.N.R. and the G.T.P. railroads. A number of lantern slides were prepared which dealt with the various phases of the practical work in connection with poultry keeping, such as housing, feeding, hatching, rearing, fattening and marketing poultry.

During the early part of the year a poultry bulletin was compiled and published under the title of "Advanced Methods of Poultry Farming," containing some fifty photogravures and drawings illustrating various styles of poultry houses and a number of appliances of a practical nature. These bulletins were mailed to all persons whose names appeared on the general mailing list of the department. Besides this many hundreds of applications have been received and all supplied. The demand for this bulletin has been very great, and applications have been received from the other provinces of the Dominion and from almost every part of the world. Two agricultural colleges applied for a number of copies in order that they might be used in class work. It is gratifying to know that the bulletin has been so well and widely appreciated.

A number of summer fairs throughout the province were attended, the poultry exhibits judged and instruction given those desirous of information as to the standard requirements of pure-bred poultry and the best manner of breeding to secure the desired results.

#### POULTRY FATTENING.

The fattening station work as conducted in 1906 was continued and poultry were fattened at Wetaskiwin, Ponoka, Lacombe, Valley City, Red Deer, Innisfail, Olds, Didsbury and Carstairs. The number of birds supplied during the season was much in excess of last year, making a total of 7,883 birds as against 3,417 in 1906.

In 1906 the advance paid for fowl and chicken respectively was 6c. and 8c. In view of the returns from the work of 1906 it was considered that conditions would warrant an increase in the advance and still leave a narrow margin sufficient for assessment on plant and equipment, the balance if any to be used as a final payment. The advance was increased to 8c. for fowl and 10c. per pound for chicken, the amount paid as advance during the season amounting to \$2,777.97.

The result of the fattening station work, notwithstanding the increase in the number of birds marketed, was not as satisfactory as the year previous. The exceptionally severe winter affected the breeding stock and the general prevailing conditions during the spring of 1907 were decidedly unfavourable to successful poultry raising. As a result the chicken were unsuitable for fleshing purposes. A further serious effect on the condition of the birds was the limited supply of grain. Many were compelled to rear their chicken with little or no grain, leaving them to depend upon the range for their food supply. The result was that many birds were in a very poor condition when placed in the fattening crates and incapable of producing satisfactory results. It was also noticed during the season that there was a great difference in the quality of the birds received at the various stations due to breed and type. As some types are incapable of giving good results in the fattening crate I would strongly recommend that in future the birds be graded when received and the advance paid to patrons accordingly. This would compensate those who are producing a better quality and be an inducement to others to do likewise.

The matter of a supply of feed was also a serious handicap, as owing to the frosted condition of the grain it became impossible to procure feed at many of the stations at any price, and the meal had to be shipped in from outside points at a much greater price than was paid in 1906.

Another serious drawback to the success of the work was a lack of a supply of buttermilk due to the serious decrease in the supply of cream at the creameries, which became so limited that many of the creameries were closed down. In some cases it became necessary to close the fattening stations; at others water was used which is very unsatisfactory as a fleshing ration. At Lacombe the creamery was closed suddenly, leaving a large number of chicken feeding, and an experiment was made at feeding a substitute for milk. Blood meal was mixed with water and oat chop and proved a much better ration than the chop and water alone. While the gain could not be expected to be as great as when milk in some form is used, I would strongly recommend the feeding of blood meal as a substitute when skim milk or buttermilk can not be procured.



With the object of reducing the cost of marketing, a carload of supplies consisting of shipping cases and fattening crates was imported from British Columbia at a much more satisfactory price than they could be secured locally. A further attempt to reduce the cost was made by centralizing the killing of the poultry fattened. A suitable building was secured at Innisfail where the supplies were kept and the birds from the various fattening stations were sent there to be killed, chilled and packed, after which they were sent to the cold storage at Calgary. The C.P.R. assisted very materially in this undertaking by making a special rate for birds sent in to the killing station. Thus while the unfavourable conditions mentioned increased the cost of production we were able to make a material saving in the killing and marketing.

Early in the season the dealers were interviewed as to the output. The prices suggested were satisfactory, but they seriously declined before the poultry was marketed owing to frost and the money stringency, which limited the purchasing power of the consumer. Later large quantities of eastern poultry were imported at an exceptionally low price, with the result that the close of the year found a considerable quantity of the poultry in cold storage unsold. This delayed the final settlement of accounts so that it was impossible to make a return to the individual farmer supplying poultry of the season's work at the close of the year.

FINANCIAL REPORT OF POULTRY FATTENING STATION WORK, 1907.

STATION	FOWL	WEIGHT	ADVANCE	CHICKS	WEIGHT	ADVANCE	TOTAL NO. OF BIRDS	TOTAL WEIGHT	TOTAL ADVANCE	DRESSED WEIGHT	Cost Feed, Wages, Mg.
Lacombe.....	250	1,130	\$ 90.40	569	2,027	\$ 202.70	819	3,157	\$ 293.10	3,107	\$ 104.51
Red Deer.....	.....	.....	.....	781	2,874½	287.45	781	2,874	287.45	2,868¾	155.66
Valley City.....	583	2,605	208.40	149	479	47.90	732	3,084	256.30	2,730	77.55
Ponoka.....	1,121	4,456	356.48	540	1,781	178.10	1,661	6,237	543.58	6,192	210.16
Wetaskiwin.....	.....	.....	.....	100	337	33.70	100	337	33.70	309	29.85
Carstairs.....	.....	.....	.....	143	454	45.40	143	454	45.40	514	28.49
Didsbury.....	.....	.....	.....	236	923	92.30	236	923	92.30	950	60.59
Olds.....	.....	.....	.....	947	3,354	335.40	947	3,354	335.40	3,560	172.50
Innisfail.....	1,367	6,123	489.84	1,097	4,099	409.90	2,464	10,222	899.74	9,471	333.69
Totals.....	3,321	14,314	\$1,144.12	4,562	16,328	\$1,632.80	7,883	30,642	\$2,777.97	29,702	\$1,173.00

Cost of killing and marketing.....	\$1,207.77
Total cost, advances, feed, wages, killing and marketing.....	5,158.74
By supplies on hand.....	56.94
Total cost.....	\$5,101.80



While the co-operative system of marketing poultry is a good one and a means of placing a better and more uniform article on the market than heretofore, it is not so profitable for the producer. As will be noticed in the report a considerable amount of money that otherwise might go to the producer is now consumed in salaries of the managers of the fattening stations, in wages and expenses of the pluckers, freight, draying and other expenses connected with the present system that would not be a direct charge against the poultry were it fleshed and prepared for market at home. To all poultry raisers that are desirous of securing the greatest possible returns I would strongly recommend fleshing and preparing their poultry for market at home, thereby diminishing the extra expense incurred under the present system.

A. W. FOLEY,  
*Poultry Superintendent.*

6.—*REPORT OF THE RECORDER OF BRANDS.*

MEDICINE HAT, Alta., January 24, 1908.

SIR,—I have the honour to submit the following report on the work of this branch of your department for the year ending 31st December, 1907.

During the year, 1,465 horse and 1,645 cattle brands were allotted, while the transfers numbered 489, changes 34 and searches and extracts 88, bringing the total transactions for both provinces up to 3,721, which was a decrease of 1,143 from the previous year.

For the Province of Alberta alone, the horse brands numbered 1,030, cattle brands 1,230, transfers 430, changes 28 and searches and extracts 73, being a total of 2,791 or a decrease of 964 transactions for the year. An analysis of the above figures shows that a total decrease of brands issued for horses and cattle in the two provinces was 1,157—890 cattle brands and 267 horse brands; while for Alberta alone the decrease was 995,—664 cattle brands and 331 horse brands. These figures, taken in connection with the very heavy list of transfers which took place during the year, go to show that the severe winter (1906-7) on cattle had a good deal to do with the decrease. Many of the smaller ranchers met with such heavy losses during the winter that it would not pay them to run a cattle ranch, and have transferred the remaining portion of their herd to others. At first sight so many men going out of the cattle business might appear to mean a serious loss to the southern part of the province, but it must be borne in mind that the advent of winter wheat, grown for the past few years, has virtually displaced the rancher in a number of districts, and the transition from a ranching to a farming district was thus made easy.

A revised brand book was issued during 1907, giving the old Territorial brands, as they stood upon the records as at 30th June, 1906, when the joint office at Medicine Hat was established. Two supplements are included in the volume,—one for the Province of Alberta and the other for the Province of Saskatchewan,—showing the brands recorded for these provinces from the 1st July up to the 31st December, 1906, and which take cognizance of all transfers and other changes made during that period.

A meeting of the brand commissioners for the province was held at Medicine Hat in January last. The commissioners had under consideration the subject of a series of cattle brands, and it was recommended that certain letters, which had not previously been used, be utilized to continue the series of brands which had been in use for some years. The addition of these letters to the series will make available some four or five thousand brands, which should be sufficient for a year or two. In view, however, of the increasing difficulty of providing a good series of new brands, and the fact that a large number of old brands, although still standing on the records, are not now in use, the commissioners were of the opinion that steps should be taken to have all brands re-allotted every fourth year. If this recommendation was carried out, a great many brands would be cancelled and thrown open for allotment. It is known to the writer that in some cases ten and twelve brands are owned by one individual or company and not more than two are in use. The large



number of brands which have been transferred from year to year, and which in a great many cases were merely transferred to hold the old stock, are now out of date and never used, and parties applying for re-allotment of these brands would only ask for those actually required.

The number of letters received during the year was 4,039, while the number of documents despatched was 6,421.

The following is a statement showing transactions from 1898 up to December 31st, 1907:

## TRANSFERS.

1899.....	132
1900.....	165
1901.....	222
1902.....	265
1903.....	400
1904.....	402
1905 { N. W. Territories.....	299
{ Alberta.....	120
{ Saskatchewan.....	80
1906 { Alberta.....	389
{ Saskatchewan.....	72
1907 { Alberta.....	430
{ Saskatchewan.....	59

## CHANGES.

1899.....	..
1900.....	27
1901.....	20
1902.....	26
1903.....	43
1904.....	43
1905 { N. W. Territories.....	32
{ Alberta.....	7
{ Saskatchewan.....	1
1906 { Alberta.....	38
{ Saskatchewan.....	2
1907 { Alberta.....	28
{ Saskatchewan.....	6

## SEARCHES AND EXTRACTS.

1899.....	..
1900.....	35
1901.....	42
1902.....	100
1903.....	144
1904.....	124
1905 { N. W. Territories.....	81
{ Alberta.....	13
{ Saskatchewan.....	2
1906 { Alberta.....	73
{ Saskatchewan.....	23
1907 { Alberta.....	73
{ Saskatchewan.....	15

Total number of brands re-allotted in 1898..... 3,228

## CATTLE BRANDS.

1898.....	2,111
1899.....	1,466
1900.....	1,508
1901.....	1,689
1902.....	1,934
1903.....	2,390
1904.....	2,034
1905 { N. W. Territories.....	1,353
{ Alberta.....	337
{ Saskatchewan.....	70

1906	{ Alberta.....	1,894
	{ Saskatchewan.....	641
1907	{ Alberta.....	1,230
	{ Saskatchewan.....	415

## HORSE BRANDS.

1898	.....	941
1899	.....	821
1900	.....	886
1901	.....	947
1902	.....	1,234
1903	.....	1,390
1904	.....	1,346
1905	{ N. W. Territories.....	985
	{ Alberta.....	248
	{ Saskatchewan.....	89
1906	{ Alberta.....	1,361
	{ Saskatchewan.....	371
1907	{ Alberta.....	1,030
	{ Saskatchewan.....	435

Total brands on record up to 31st December, 1907, 34,384

Total transactions in	1898	6,280
“	“ 1899	2,419
“	“ 1900	2,621
“	“ 1901	2,920
“	“ 1902	3,559
“	“ 1903	4,367
“	“ 1904	3,949
“	“ 1905 {	N. W. Territories.... 2,750
		Alberta..... 725
		Saskatchewan..... 242
“	“ 1906 {	Alberta..... 3,755
		Saskatchewan..... 1,109
“	“ 1907 {	Alberta..... 2,791
		Saskatchewan..... 930

JAS. WILSON,  
*Recorder of Brands.*



### 7.—*EDUCATIONAL WORK.*

SIR,—I have the honour to submit herewith the report of Institutes and Fairs for the year 1907.

#### FARMERS' INSTITUTES.

In a young and growing country of this kind agricultural educational campaigns may be of great influence in shaping the agriculture of the country. If practical men are employed in carrying out the field work much good will be accomplished. We must have men who can talk on practical subjects and who will deal with them in a practical way. So far we have been fortunate in securing the services of high class men, those who not only understand their subjects but know how to present these subjects in a clear and forcible manner.

We find that foreigners appreciate the efforts of the department in its endeavour to spread agricultural information. These people are in the country to earn a livelihood, and anything that will help them do so and at the same time increase the comforts of life is very gratefully received.

Since there is no agricultural college at present within the province from which agricultural knowledge may radiate the farmers' institute must, so far as it lies within its power, supplement the work of such an institution. That the work of the farmers' institute is being appreciated is evidenced by the fact that the attendance at the meetings is on the increase. Again, we are repeatedly receiving requests for meetings at outlying points. Owing to the severity of the past winter it was impossible to favour points which were removed from the line of railway, but we hope in the future to so arrange our work that the requests of these people will be met.

One of the greatest difficulties in institute work here has been that of getting people to attend the meetings. There is little use of attempting to put on an extensive series of meetings in the summer as the farmer is usually too busy to attend, consequently most of the work must be done in the winter months. If the weather be unfavourable the meetings are poorly attended, but even with favourable weather there are occasions when the population of the district would warrant a much larger attendance. The more progressive farmers will always be present but those whom it is most important to reach never appear at the meetings. In order to make the meetings as attractive as possible something new was attempted last year, namely, travelling stock judging schools. Two cars were secured from the C.P.R. and about 50 head of stock were carried from place to place throughout the province and used for demonstration purposes. The scheme proved highly successful, not only in disseminating knowledge on live stock but in getting large crowds to attend the meetings. From 50 to 150 were in attendance at each school.

#### STOCK JUDGING SCHOOLS.

It was at first the intention to hold a one-week school at several places throughout the province, using local animals for demonstration

purposes at each point visited. With this intention meetings of the agricultural societies were called at the following places: Medicine Hat, Magrath, High River and Innisfail. The scheme was outlined at each of these meetings and it was enthusiastically received at every point. After conversing with many of the prominent stockmen in the province it was found that it would be impossible to have efficient work done if local animals were used for demonstration, consequently an endeavour was made to secure if possible animals to be loaned to the department and carried in cars from place to place.

A meeting of the Lacombe Agricultural Society was called and the stockmen present were asked if they would be willing to loan their best stock to be used as outlined above. The proposition met with their unanimous approval and two cars were arranged for at once for the purpose of carrying the stock. Immediately the principal stockmen throughout the province were visited with a view to securing the best possible specimens. The work of selecting cattle, sheep and swine was not so difficult, but to secure proper types of the breeds of horses proved a difficult task. In selecting stock the object was to have the popular breeds of horses, cattle, sheep and swine represented. The following is a list of classes and breeds:

Horses: Percheron, Shire, Clydesdale, Hackney and Thoroughbred.

Cattle: Shorthorn, Hereford, Angus, Galloway, Holstein, Ayrshire, Jersey and Grades.

Sheep: Shropshire and Oxford.

Hogs: Yorkshire, Berkshire, Chester, Tamworth, and Grade bacon.

In all some 50 animals were carried.

The following is a list of those who loaned animals for the stock judging school, together with the breed and number supplied by each:

Geo. Root, Red Deer: 2 Percheron stallions, 1 Shire stallion, 2 Shorthorn cows, 1 Berkshire pig.

Bryce Wright, De Winton: 1 Clydesdale mare, 1 Thoroughbred mare.

Jno. Turner, Calgary: 1 Clydesdale stallion, 2 Shropshire sheep.

J. Richards, Red Deer: 1 Clydesdale stallion.

G. H. Hutton, Lacombe: 1 Clydesdale mare.

Jas. McGill, Lacombe: 1 Shorthorn bull.

Dr. Harrington, Lacombe: 1 Shorthorn cow, 1 Grade steer.

J. Adams, Calgary: 1 Galloway Heifer.

Jno. Parker, Lacombe: 1 Hereford bull, 1 Hereford heifer, 2 Yorkshire pigs.

P. Huntley, Lacombe: 2 Hereford cows, 2 Hereford heifers, 1 Grade steer, 1 Chester pig.

J. Capron, Blackfalds: 1 Angus cow.

J. Fay, Blackfalds: 1 Angus cow, 1 Angus bull.

Wm. Tregillus, Calgary: 1 Holstein cow, 1 Holstein heifer, 1 Ayrshire cow, 1 Jersey cow.

Albert Boyd, Lacombe: 4 Oxford sheep.

The following were bought by the Government for use in the schools: 6 Grade steers, 4 Grade pigs, 2 Hackney mares.

Owing to the risk in carrying these animals on the train for three months they were insured.

By getting proper types of animals to start with and keeping these through the whole campaign it was possible to impress the type of the different breeds to an extent otherwise impossible.

The cars started out from Edmonton and picked up animals at various points as far south as Calgary, thence proceeding to Medicine Hat where the first school was held. The following is a list of places where the schools were held, together with the dates and names of speakers:



PLACE	DATE	SPEAKERS
Medicine Hat.....	January 7 to 12.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. B. Wright, DeWinton, Alta. W. A. Munro, Morrisburg, Ont. M. D. Geddes, Calgary, Alta. H. A. Craig, Edmonton, Alta.
Magrath.....	January 14 to 17.....	{ G. H. Hutton, Lacombe, Alta. C. M. McCrae, Ottawa, Ont. W. A. Munro, Morrisburg, Ont. H. A. Craig, Edmonton, Alta.
Red Deer.....	January 22 to 26.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. M. D. Geddes, Calgary, Alta. H. A. Craig, Edmonton, Alta.
Innisfail.....	Jan. 28 to Feb. 2.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. W. I. Tregillus, Calgary, Alta. H. A. Craig, Edmonton, Alta.
Lacombe.....	February 5 to 15.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. Jno. Turner, Calgary, Alta. T. H. Mason, Straffordville, Ont. H. A. Craig, Edmonton, Alta.
Edmonton.....	Feb. 18 to Mar. 2.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. Jno. Turner, Calgary, Alta. T. H. Mason, Straffordville, Ont. H. A. Craig, Edmonton, Alta.
Wetaskiwin.....	March 4 to 9.....	{ T. H. Mason, Straffordville, Ont. C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. H. A. Craig, Edmonton, Alta.
Olds.....	March 11 to 16.....	{ C. M. McCrae, Ottawa, Ont. G. H. Hutton, Lacombe, Alta. W. A. Munro, Morrisburg, Ont. B. Wright, DeWinton, Alta. H. A. Craig, Edmonton, Alta.
High River.....	March 18 to 23.....	{ B. Wright, DeWinton, Alta. W. A. Munro, Morrisburg, Ont. G. H. Hutton, Lacombe, Alta. H. A. Craig, Edmonton, Alta.

The stock was unloaded at each place visited and stabled in livery barns. Comfortable classrooms were fitted up at each point with seats and plenty of windows for light, stoves for heating, etc. A hostler and two herdsman accompanied the stock, looked after feeding, grooming, holding in classroom, loading of cars, caring for the animals in transit, etc.

The following programme was carried out at each place:

*When School was held one week.*

Monday.—Grade fat steers.  
 Tuesday.—Pure breeds of beef cattle—block test.  
 Wednesday.—Sheep, hogs and dairy cattle—block test.  
 Thursday.—Dairy cattle and light horses.  
 Friday.—Heavy horses.  
 Saturday.—Judging contest.

*When School was held two weeks.*

## FIRST WEEK—

Tuesday.—Pure bred beef cattle.  
 Wednesday.—Grade beef cattle.  
 Thursday.—Grade beef cattle—block test.  
 Friday.—Sheep and swine.  
 Saturday.—Swine—block test.

## SECOND WEEK—

Monday.—Dairy cattle.  
 Tuesday.—Light horses.  
 Wednesday.—Light and heavy horses.  
 Thursday.—Heavy horses.  
 Friday.—Judging contest.

It will be seen from the above programme that all classes of live stock were dealt with. There were enough animals in each breed to make up a class, so that considerable practice was afforded in placing or judging the animals. Score cards were used for the purpose of bringing out points of the animals before the students. At several of the places visited grade cattle, hogs and sheep were bought to be used in the block test. These animals were first criticized on foot and placed in order of merit, then slaughtered and the carcasses returned to the class room. These were cut up by butchers and lectures were delivered on the various cuts. This feature of the work proved very interesting, much valuable information being derived therefrom.

At the close of each school a judging contest was held, prizes being offered for the best judging of live stock, open to competition to members of the school only. A membership fee of \$1.00 was charged to each regular student, this money being used for fitting up the classroom and for prize money in the stock judging contest. The two men standing highest in each class had their fare paid by the Department of Agriculture to the spring fat stock show at Calgary to compete for a grand championship trophy awarded by the Department of Agriculture. This feature was a great incentive for competition during the time the schools were in progress. The trophy was won this year by T. H. Tinney, Medicine Hat. The trophy must be won twice before becoming the property of the holder.

The whole scheme proved to be most successful. The specimens of live stock were a great drawing card. Men who had never been known to attend an institute meeting before were present, and after attending one session of the school decided to be in attendance at all those to follow. In some cases men who attended the school at one town followed it to the next.

## AGRICULTURAL INSTITUTE MEETINGS.

Quite a large series of regular institute meetings have been held during the year and topics bearing on dairying, weeds, poultry, live stock and dry farming have been discussed.

A good deal of effort has been directed toward the improvement of the dairy industry. In the lectures particular attention has been given to such subjects as Care of Milk, Separating, Ripening and Churning Cream, Working and Packing of Butter, Testing of Milk,



the Building up of the Dairy Herd, the Ideal Dairy Animal, the Feeding, Care, Management and Stabling of Dairy Animals, etc. Under the head of poultry the following subjects have been discussed: Advanced Methods of Poultry Raising, Natural and Artificial Incubation, Rearing, Feeding and Fattening, Poultry Houses and Fixtures, Winter Egg Production, and other subjects of interest in connection with the poultry industry.

Special attention has been given to the question of weeds, the identification of the most noxious weeds prevalent in the province, and also the best methods of combating such.

The department was successful in arranging with Prof. H. W. Campbell for a series of lectures. This gentleman has a continental reputation as an expert in the theory and practice of dry farming. His meetings were well attended and as a result of his work a large number of farmers in Southern Alberta are putting into practice the theory recommended by him, and practically all those who have followed his advice at all closely are receiving very satisfactory results. Owing to the lateness of the date on which he visited the province it was not possible to follow in thorough detail the method which he recommended but very many farmers have signified their intention of following closely what is known as the "Campbell System" during the coming year. The department hopes to avail itself of the services of Prof. Campbell during the early part of next summer.

The following is a list of the institute meetings held in the province in 1907:

INSTITUTE MEETINGS HELD 1907.—Weeds, Grain, Forestry and Live Stock.

PLACES	DATES	TIME	SPEAKERS
High River.....	February 13	2 and 8 p.m.	A. Mitchell, Edmonton, Alta. W. C. McKillican, Calgary, Al. D. W. Warner, Edmonton, Al.
Okotoks.....	" 14	"	"
DeWinton.....	" 15	"	"
Airdrie.....	" 18	"	"
Crossfield.....	" 19	"	"
Carstairs.....	" 20	"	"
Bowden.....	" 21	"	"
Penhold.....	" 22	"	"
Stettler.....	" 23	"	"
Alix.....	" 25	"	"
Morningside.....	" 26	"	"
Blackfalds.....	" 27	"	"

## INSTITUTE MEETINGS HELD 1907.—Dairy and Poultry.

PLACE	DATE	TIME	SPEAKERS
Carstairs .....	March 11	1.30 p.m.	G. W. Scott, Calgary, Alta. T. H. Mason, Straffordville, Ont. A. W. Foley, Edmonton, Alta.
Didsbury.....	" 11	8 p.m.	"
Innisfail.....	" 12	1.30 and 8 p.m.	"
Red Deer.....	" 13	1.30 and 8 p.m.	"
Blackfalds.....	" 14	1.30 p.m.	"
Ponoka.....	" 15	10 a.m.	"
Ferry Bank.....	" 15	2.30 p.m.	"
Leduc.....	" 16	1.30 and 8 p.m.	"
Sedgewick.....	" 18	8 p.m.	"
Spring Lake.....	" 19	1.30 p.m.	"
Camrose.....	" 20	10 a.m.	"
Bawlf.....	" 20	8 p.m.	"
Rosenroll.....	" 21	1.30 and 8 p.m.	"
Highland Park.....	" 22	1.30 and 8 p.m.	"
Wetaskiwin.....	" 23	1.30 p.m.	"
Stettler.....	" 25	8 p.m.	"
Content.....	" 26	1.30 p.m.	"
Lamerton.....	" 27	1.30 p.m.	"
Earlville.....	" 28	1.30 p.m.	"
Valley City.....	" 29	1.30 p.m.	"
Lacombe.....	" 30	2 p.m.	"
Josephsburg .....	July 9,10,11	.....	C. Marker, Calgary, Alta. G. W. Scott, Calgary, Alta.

## INSTITUTE MEETINGS HELD 1907.—Weeds, Poultry and Dairy.

PLACE	DATE	TIME	SPEAKERS
Tofield.....	September 3	10 a.m.	H. S. Pearson, Red Deer, Alta. A. Mitchell, Edmonton, Alta. A. W. Foley, Edmonton, Alta.
Holden.....	" 4	"	"
Earling.....	" 5	"	"
Viking.....	" 6	"	"
Vegreville.....	" 7	8 p.m.	"
Warwick.....	" 9	10 a.m.	"
Whitford.....	" 10	"	"
Wostok.....	" 11	"	"
Chipman.....	" 12	"	"
Mundare.....	" 13	"	"
Innisfree.....	" 14	"	"
Mannville.....	" 16	"	"
Vermilion.....	" 17	"	"
Islay.....	" 18	"	"
Kitscoty.....	" 19	"	"
Lloydminster.....	" 20	"	"



## INSTITUTE MEETINGS HELD 1907.—Dry Farming.

PLACE	DATE	TIME	SPEAKER
Medicine Hat.....	June 24	2 p.m.	Prof. H. W. Campbell, Lincoln, Nebraska.
Lethbridge.....	" 25	2 and 8 p.m.	"
Claresholm.....	" 26	10 a.m.	"
Macleod.....	" 26	8 p.m.	"
Pincher Creek.....	" 27	2 and 8 p.m.	"
Fishburn.....	" 28	10 a.m.	"
Mountain View.....	" 28	8 p.m.	"
Cardston.....	" 29	10 a.m. & 2 p.m.	"
Magrath.....	July 1	8 p.m.	"
Raymond.....	" 2	2 p.m.	"
Nanton.....	" 3	2 p.m.	"
High River.....	" 3	8 p.m.	"
Okotoks.....	" 4	2 p.m.	"
Calgary.....	" 5	1 p.m.	"
Airdrie.....	" 5	8 p.m.	"
Carstairs.....	" 6	2 p.m.	"
Didsbury.....	" 6	7.30 p.m.	"

## AGRICULTURAL FAIRS.

During the year the following new societies have been organized:

Priddis and Millarville Agricultural Society .....	Priddis.
Viking and Birch Lake " .....	Viking.
St. Albert and Morinville " .....	Morinville.
Stettler " .....	Stettler.
High River " .....	High River.
Mannville " .....	Mannville.

## OFFICIAL JUDGES.

The department has supplied two official judges to place the awards. For the Calgary and Edmonton fairs three men were employed: W. B. Fuller, Woodstock, Ont., for light horses; Geo. Gray, Newcastle, Ont., for heavy horses; and Alex. Smith, Maple Lodge, Ont., for cattle, sheep and swine. The department was also able to secure the services of A. G. Paterson, Winnipeg, to place the awards on horses at the fairs held toward the latter part of the season. All the other men who officiated as judges reside within the province. It is gratifying to know that universal satisfaction has been given by all these men.

The following is a list of fairs held in the province in 1907, together with dates and names of judges:

FAIR	DATE	JUDGE FOR HORSES	JUDGE FOR CATTLE, SHEEP AND SWINE
Edmonton.....	July 1, 2, 3, 4	S. B. Fuller, Woodstock, Ont...	A. Smith, Maple Lodge, Ont.
Innisfail.....	July 4, 5	Geo. Gray, Newcastle, Ont.....	"
Calgary.....	July 9, 10, 11, 12.	"	"
Okotoks.....	July 16, 17	"	"
High River.....	July 18, 19	"	"
Red Deer.....	July 23, 24	D.C. Robertson, Edmonton, Alta	"
Strathcona.....	July 24	"	"
Ft. Saskatchewan	July 26	W. Moodie, DeWinton, Alta....	Bryce Wright, DeWinton, Alta.
Macleod.....	July 31, Aug. 1	"	"
Lethbridge.....	Aug. 6, 7, 8	"	"
Leduc.....	Aug. 8, 9	"	T. B. R. Henderson, Edmonton.
Magrath.....	Sept. 19, 20	A. G. Paterson, Winnipeg, Man.	T. H. Tinney, Medicine Hat,
Raymond.....	Sept. 24, 25	"	Alberta.
Cardston.....	Sept. 26, 27	"	"
Medicine Hat...	Oct. 1, 2	"	J. G. Clark, Calgary, Alta.
Lacombe.....	Oct. 3, 4	J. G. Clark, Calgary, Alta.....	T. H. Tinney, Medicine Hat, A.
Ponoka.....	Oct 7, 8	A. G. Paterson, Winnipeg, Man.	J. G. Clark, Calgary, Alta.
Wetaskiwin.....	Oct. 9, 10	"	"
Morinville.....	Oct. 10	"	"
Vermilion.....	Oct. 1, 2	D. C. Robertson, Edmonton....	W. R. Winslow, Lacombe, Alta.
Vegreville.....	Oct. 3, 4	"	"
Viking.....	Oct. 7, 8	"	"
Nanton.....	Oct. 15	E. C. Hallman, Airdrie, Alta...	S. W. Paisley, Canyon, Alta.
Pincher Creek...	Oct. 16	"	"
Priddis.....	Oct. 18	"	"
Didsbury.....	Oct. 14	A. G. Paterson, Winnipeg, Man.	W. R. Winslow, Lacombe, Alta.
Stettler.....	Oct. 1, 2	H. A. Craig, Edmonton, Alta.	G. H. Hutton, Lacombe, Alta.

The Alberta Fairs Association organized for the purpose of improving exhibitions have a committee appointed to draft new regulations in connection with the prize lists and to make suggestions for their improvement. Owing to some matters over which the committee had no control the recommendations were not forwarded to the secretaries of the societies in time to be made use of for this year. These recommendations are in the hands of the secretaries now and it may be expected that there will be a decided improvement in the prize lists for the coming year. The association held a meeting in Calgary during the time of the fat stock show and arranged dates for the fairs to be held during the season.

The following is a statement showing the number of entries, the amount paid in prizes and grant for exhibition purposes:



## EXHIBITION STATEMENT, 1907.

SOCIETY	Date of Exhibition	No. of Entries	Amount paid in prizes for Sports	Amount paid in prizes for field com- petition	Amount paid in prizes for stallion show	Amount paid in prizes for seed grain show	Amount paid in prizes for poultry show	Amount paid in other prizes	Exhibition Grant payable 1908
Cardston.....	Sept. 26, 27...	587	.....	\$ 100.00	.....	\$ 121.00	.....	\$ 779.50	\$ 686.33
Deserett.....	Sept. 19, 20...	540	\$ 126.00	55.00	.....	51.00	.....	541.00	448.33
Didsbury.....	Oct. 14.....	333	.....	.....	.....	35.00	.....	272.50	216.67
Innisfail.....	July 5.....	907	.....	.....	.....	60.00	.....	774.00	576.00
Lacombe.....	Oct. 3, 4.....	352	25.00	71.25	.....	.....	.....	465.90	358.10
Lethbridge and district.	Aug. 6 to 8...	1,235	2,649.00	150.00	.....	73.00	\$ 191.75	2,102.00	1,766.08
Macleod.....	July 31, Aug. 2	419	1,512.50	60.00	.....	.....	.....	956.25	637.50
Medicine Hat.	Oct. 1, 2.....	357	.....	90.00	.....	31.00	.....	832.00	645.67
Pincher Creek.	Oct. 16.....	139	20.00	.....	.....	.....	.....	400.00	266.66
Ponoka.....	Oct. 7, 8.....	442	236.00	.....	.....	11.82	.....	590.00	405.15
Raymond.....	Sept. 24, 25...	453	95.00	100.00	.....	.....	.....	433.75	355.83
Olds.....	Oct. 10, 11...	562	.....	.....	.....	64.00	.....	331.00	284.67
Okotoks.....	July 16, 17...	458	20.00	.....	\$ 103.00	.....	.....	639.00	494.67
Vermilion Valley and Beaver Lake.	Oct. 3, 4.....	654	.....	100.00	.....	.....	.....	546.25	430.83
Wetaskiwin.....	Oct. 9.....	206	50.00	.....	.....	.....	.....	446.50	297.67
Leduc.....	Aug. 9.....	536	99.50	100.00	.....	.....	.....	558.85	439.23
Nanton.....	Oct. 15.....	325	120.50	.....	.....	.....	.....	610.50	407.00
Vermilion.....	Oct. 15, 16...	374	.....	.....	.....	.....	.....	499.75	333.17
High River.....	July 18, 19...	157	458.00	.....	.....	.....	.....	320.00	213.33
Priddis and Millarville.	Oct. 18.....	255	45.00	.....	.....	.....	.....	320.00	213.33
Viking and Birch Lake district.	Oct. 8.....	276	.....	.....	.....	.....	.....	218.25	.....
St. Albert and Morinville.	Oct. 10, 11...	258	.....	.....	.....	.....	.....	511.50	341.00
Stettler.....	Oct. 2, 3.....	503	420.00	.....	.....	.....	.....	402.50	268.33
Red Deer Exhibition Association.	July 23, 24, Oct. 10	653	197.60	100.00	.....	59.00	.....	1,564.30	1,168.53
Fort Saskatchewan Exhibition Association.	July 26.....	408	519.50	.....	.....	.....	.....	451.00	300.67
Inter-Western Pacific Exhibition Association.	July 9 to 12...	1,312	3,940.00	.....	.....	.....	.....	4,279.85	2,853.23
Edmonton Industrial Exhibition Association.	July 1 to 4...	1,154	6,396.09	.....	.....	.....	.....	5,186.35	3,000.00

The following is the financial statement of the various societies and exhibitions and fairs showing the summary of the year's work:

## FINANCIAL STATEMENT, 1907.

SOCIETY	Balance on hand from 1906	Mis- cellaneous Receipts	Government Grant paid in 1907	Total Receipts	Total Expenditure	Balance on hand	Assets	Liabilities
Cardston.....	\$ 10.00	\$ 1,051.15	\$ 563.33	\$ 1,614.48	\$ 1,713.83	.....	\$ 808.98	\$ 500.00
Deserett.....	52.62	1,907.85	515.67	2,476.14	2,389.98	\$ 86.16	1,086.16	303.00
Didsbury.....	215.30	251.05	325.66	792.01	531.60	260.41	260.41	.....
Innisfail.....	94.18	2,624.84	701.00	3,420.02	3,378.33	41.69	4,854.69	1,051.00
Lacombe.....	189.99	8,241.00	352.83	8,783.82	5,201.70	3,582.12	10,884.27	.....
Lethbridge and district.....	64.66	13,324.49	891.50	14,280.65	14,244.80	35.85	9,655.13	6,627.24
Macleod.....	.....	3,506.52	638.33	4,144.85	4,117.84	27.01	327.01	700.00
Medicine Hat.....	301.46	1,297.65	571.83	2,170.94	2,057.24	113.70	1,087.70	550.00
Pincher Creek.....	114.46	1,660.52	219.67	1,994.65	1,994.65	.....	5,325.00	1,524.96
Ponoka.....	13.28	1,249.55	421.17	1,684.00	1,682.82	1.18	1,152.84	586.00
Raymond.....	.....	902.00	388.33	1,290.33	1,820.11	.....	1,500.00	1,135.36
Oils.....	31.67	878.15	428.83	1,338.65	1,203.09	135.56	3,635.56	1,764.79
Okotoks.....	1.18	879.35	615.83	1,496.36	1,464.82	31.54	1,281.54	1,093.00
Vermilion Valley and Beaver Lake.....	77.18	1,215.85	580.20	1,873.23	1,858.04	15.19	3,682.69	3,243.58
Wetaskiwin.....	.....	190.20	367.83	730.19	659.54	70.65	725.65	.....
Leduc.....	.....	1,001.10	343.53	1,344.63	1,323.83	20.80	20.80	263.00
Nanton.....	50.85	702.50	240.66	994.01	991.45	2.56	2.56	.....
Vernilion.....	.....	836.50	398.17	1,234.67	1,215.84	18.78	22.58	300.00
High River.....	.....	1,273.65	.....	1,273.65	1,575.31	.....	250.00	301.66
Priddis and Millarville.....	.....	412.10	.....	412.10	412.10	.....	.....	107.35
Viking and Birch Lake district.....	.....	484.23	.....	484.23	484.23	.....	.....	8.48
St. Albert and Morinville.....	.....	523.90	.....	523.90	523.90	.....	.....	214.00
Stettler.....	.....	1,257.23	.....	1,257.23	1,533.80	.....	67.00	469.07
Red Deer Exhibition Association.....	.....	26,236.10	382.50	26,618.60	26,597.29	21.31	11,663.86	8,464.69
Fort Saskatchewan Exhibition Association.....	272.95	2,572.30	244.83	3,090.08	3,088.74	1.34	10,861.64	490.00
Inter-Western Pacific Exhibition Association.....	90.91	14,196.80	2,225.85	16,513.56	16,381.13	132.43	1,015.93	2,461.00
Edmonton Industrial Exhibition Association.....	439.22	39,036.87	2,922.77	42,398.86	42,363.86	35.00	6,174.99	6,174.99



The following is a statement showing the number of agricultural societies, their membership, the number of meetings held, the attendance at the same and the amount of membership grant earned by each:

## INSTITUTE STATEMENT, 1907.

SOCIETY	NUMBER OF MEMBERS	NUMBER OF MEETINGS	TOTAL AT- TENDANCE	MEMBERSHIP GRANT PAYABLE 1908
Cardston.....	151	2	255	\$ 150.00
Deserett.....	145	2	65	145.00
Didsbury.....	78	2	195	78.00
Innisfail.....	173	2	490	150.00
Lacombe.....	88	2	200	88.00
Lethbridge and district....	186	2	275	150.00
Macleod.....	200	2	92	150.00
Medicine Hat.....	137	2	287	137.00
Olds.....	119	2	180	119.00
Pincher Creek.....	80	..	...	.....
Ponoka.....	130	2	45	130.00
Raymond.....	150	2	350	150.00
Okotoks.....	196	2	47	150.00
Vermilion Valley & Beaver Lake.....	120	..	...	.....
Wetaskiwin.....	32	1	160	.....
Leduc.....	114	2	175	114.00
Nanton.....	76	2	140	76.00
Vermilion.....	80	2	157	80.00
High River.....	97	2	107	97.00
Priddis and Millarville....	70	2	73	70.00
Viking and Birch Lake dis.	151	2	90	150.00
St. Albert and Morinville...	129	2	85	135.00
Mannville.....	50	2	24	.....
Stettler.....	156	2	85	150.00

## SEED GRAIN FAIRS.

Owing to the fact that the department has increased the grant for seed grain fairs the interest has been greatly stimulated. These fairs are held by the agricultural societies in conjunction with the representative of the Dominion Seed Branch of the Department of Agriculture, W. C. McKillican, of Calgary.

The following is a list of seed grain fairs held within the province in 1907:

Cardston.....	Sept. 26-27	Innisfail.....	Mar. 1-2.
Magrath.....	Feb. 8-9.	Lethbridge.....	Feb. 13.
Didsbury.....	Jan. 30.	Olds.....	Jan. 29.

## THE PROVINCIAL SEED FAIR.

For the past three years the seed branch of the Dominion Department of Agriculture has been conducting seed fairs throughout the province, in connection with the local agricultural societies, for the exhibition, sale and exchange of farm seeds. It was thought that it would be a good thing to hold a provincial exhibit where exhibitors in all parts of the province could be brought together and compete for prizes, in the various classes of grains. It was suggested that the fair be held at different places in the province from year to year.

In accordance with these suggestions it was decided to hold the first Provincial Seed Fair at Edmonton, on March the 6th, 7th and 8th. Over one hundred grain growers from all parts of the province

entered their grain for competition, which made an excellent exhibit. The rules and regulations in the prize list require the exhibitor to have on hand for sale for seed, not less than 50 bushels of each of the various classes of grains. The entry tickets give the name and address of the exhibitor, the number of bushels of grain for sale and the price per bushel. By this means those requiring seed grain have an excellent opportunity of procuring seed of the highest quality.

Below will be found a list of the prizes offered at this fair, together with the names of the prize winners in the various classes:

## PROVINCIAL SEED FAIR.

## PRIZE LIST.

	1st	2nd	3rd	4th	5th	6th
1. Winter wheat, Alberta Red.....	15	12	10	7	5	3
2. Winter wheat, any soft variety.....	13	9	4			
3. Spring wheat, Red Fife.....	15	12	10	7	5	3
4. Spring wheat, any other good milling variety.....	13	9	4			
5. Oats, Banner.....	15	12	10	7	5	3
6. Oats, any other long or milling variety.....	15	12	10	7	5	3
7. Oats, any short or feed variety.....	13	9	5	3		
8. Barley, any two-rowed variety.....	12	8	4			
9. Barley, any six-rowed variety.....	12	8	4			
10. Peas.....	8	5	3			
11. Flax seed.....	8	5	3			
12. Timothy seed.....	8	5	3			
13. Brome grass seed.....	8	5	3			
14. Rye grass seed.....	8	5	3			
15. Red clover seed.....	8	5	3			
16. Alsike clover seed.....	8	5	3			
17. Alfalfa.....	8	5	3			

In addition to the above, commended and highly commended awards will be made when there are sufficient entries.

## PROVINCIAL SEED FAIR.

Edmonton, March 6th, 7th and 8th, 1907.

## LIST OF PRIZE WINNERS.

Class 1, Alberta Red wheat: 1st, Wm. Leavitt, Leavitt; 2nd, Thos. Leavitt, Leavitt; 3rd, Wm. A. Woolford, Cardston; 4th, Thos. H. Woolford, Cardston; 5th, Frank Creamon, Cardston; 6th, Hyrum J. Bowden, Cardston.

Class 2, Winter wheat, soft: 1st, Wm. Traub, Didsbury; 2nd, F. W. Kienbaum, Olds; 3rd, A. L. Boyd, Bowden.

Class 3, Wheat, Red Fife: 1st, Harvey Wooley, Medicine Hat; 2nd, Joseph Atkinson, Medicine Hat; 3rd, Ivan R. Lindsay, Clover Bar; 4th, Wm. Keith, Clover Bar; 5th, Adolph Johnson, Clover Bar; 6th, C. S. Crest, Lethbridge.

Class 4, Spring wheat, other than Red Fife: 1st, Alex. Wooley, Medicine Hat; 2nd, Jos. Y. Card, Cardston; 3rd, Geo. T. White, Red Deer.

Class 5, Oats, Banner: 1st, S. C. Hagen, Winterburn; 2nd, P. Hecko, Clover Bar; 3rd, R. McAllister, Strathcona; 4th, M. Smeltzer, Edmonton; 5th, A. J. Stannard, Strathcona; 6th, Adolph Johnson, Clover Bar.

Class 6, Oats, any other long or milling variety: 1st, Hyrum J. Bowden, Cardston; 2nd, John Milligan, New Lunnon; 3rd, S. C. Hagen, Winterburn; 4th, Lars Jensen, Olds; 5th, E. Alpaugh, Conjuring Creek; 6th, Magnus Pearson, Calmar.

Class 7, Oats, any short or feed variety: 1st, R. Fisher, Spruce Grove; 2nd, Albert Loughheed, Bowden; 3rd, E. Alpaugh, Conjuring Creek; 4th, Ernest Johannsen, Strathcona.

Class 8, Barley, any two-rowed variety: 1st, Fred H. Herbert, Strathcona; 2nd, Thos. H. Woolford, Cardston; 3rd, T. Dorward, Edmonton.

Class 9, Barley, any six-rowed variety: 1st, A. Von Mielecki, Calgary; 2nd, J. J. Richards, Red Deer; 3rd, Adolph Johnson, Clover Bar.

Class 10, Peas: 1st, John A. McLeod, Edmonton.

Class 11, Flax seed: 1st, Fred H. Herbert, Strathcona; 2nd, Ralph Hulbert, Strathcona.

Class 12, Timothy seed: 1st, S. E. Howard, Innisfail; 2nd, H. B. Moore, Innisfail.

Class 13, Brome grass seed: 1st, Alex. S. Blackwood, DeWinton.



## INSTITUTE MEETINGS AT SEED FAIR.

On each afternoon of the days of the fair a programme of excellent lectures was delivered by competent men, on subjects of interest to grain growers, such as—

1. Causes of defects in wheat.
2. Smut in grain, and its treatment.
3. Eradication of weeds.
4. Grain judging.

These lectures were well attended and much interest shown.

The writer commenced his duties as secretary of the Beef Commission on May 13th, on which work he was engaged until September 14th. Since this date until the writing of this report matters pertaining to Beef Commission work have occupied considerable of his time, consequently it was impossible to visit many of the fairs held during the season.

H. A. CRAIG,  
*Superintendent of Fairs and Institutes.*

## 8.—REPORT OF THE PROVINCIAL HEALTH OFFICER.

SIR,—I have the honour to submit a report of the year 1907 on matters pertaining to the public health of the province. For convenience the report is taken up under the headings of public health and hospitals.

## I.—PUBLIC HEALTH.

Taking the province as a whole the health of the people during the year has been good.

Owing to the severity of the previous winter and to the fact that large numbers of cattle had perished through the severe temperatures it was found necessary to remove from the streams and other places numerous carcasses of animals in order to avoid their pollution by noxious matters.

It is satisfactory to note that whilst the reports of contagious and infectious diseases from the medical health officers of the municipalities and physicians throughout the province are being received with greater regularity and precision than last year, yet there is room for more attention upon the part of those whose duty it is to report such matters, as it is only by their co-operation and promptness in making these returns that the information obtained in this manner throughout the province may be gathered together and compiled in some permanent book-form so as to be of use for reference to those interested in the advancement of the public health of the province.

*Contagious and Infectious Diseases.*

*Smallpox* was epidemic during the early months of the year in the southern portion of the province and considerable effort and expense were entailed in its suppression. The amount of money actually expended in checking this disease was \$2,137.74. However, the results of these efforts are shown in that the few cases that have broken out in the interval could be traced to the previous epidemic. This disease will be difficult to eradicate from the province as long as the immigration into the country on such a large scale is taking place, the contagion being brought over from the States mostly by settlers and in their effects.

*Scarlet fever, diphtheria, measles and chickenpox* have been prevalent in different parts of the province.

*Typhoid fever* is on the increase, and in my opinion this disease requires to be carefully looked into and guarded against. It may be safely said that this disease causes more monetary loss to any individual or community, outside of the loss of life due to the disease itself, than any other disease.

In connection with contagious and infectious diseases, I desire to point out that notwithstanding the general improvement in sanitary conditions of the municipalities and villages these diseases will increase in proportion as the immigration into the province increases.

Herewith is appended tables showing that a total of 1,648 cases of contagious and infectious diseases were reported during the year. To this is also added a table giving the mortuary statistics for the year, arranged according to the Bertillon system.



## CONTAGIOUS AND INFECTIOUS DISEASES IN MUNICIPALITIES.

CASES REPORTED, 1907.

MUNICIPALITY	CHICKENPOX												DIPHTHERIA													
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Calgary.....		5									2	8	15	5	7	11	1	4	2	4		3	3	1		41
Cardston.....																										
Claresholm.....																										
Didsbury.....									1	2	1		5	2	1	1			1		2				2	2
Edmonton.....	1												5													
Fort Saskatchewan.....																										
High River.....					1								1													
Innisfail.....																										
Lacombe.....																										
Leduc.....																										
Lethbridge.....					4	13	1						20				2						1		1	3
Medicine Hat.....										1	10	5	16								1					1
Macleod.....									2				2								1					1
Okotoks.....																										
Olds.....																						3				3
Pincher Creek.....																										
Ponoka.....																			2							2
Raymond.....																2										
Red Deer.....											3		3						1							1
St. Albert.....																										
Strathcona.....	2	1											3					1				1				3
Taber.....																								5		5
Vegreville.....																										
Vermilion.....																1										1
Wetaskiwin.....																		1								
Totals.....	2	7			4	14	1		3	3	21	15	70	7	8	15	3	6	6	4	4	7	4	7	5	76

MUNICIPALITY	MEASLES												SCARLET FEVER													
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Calgary.....	1	1		26	69	18	5	2		4	2	1	129			4	4	2	2	2	2		2	5	5	28
Cardston.....												2	2													
Charisholm.....			1		6	1		7	6			2	23													
Didsbury.....												3	120			1	9	1	3	1			2	2	4	29
Edmonton.....	1	4	1	8	30	47	18	5	1	2			1													
Fort Saskatchewan.....						1							15			2						3		2	2	9
High River.....						1						7	37					7								
Innisfail.....						20			3				3													1
Lacombe.....																										3
Lejac.....																										
Lethbridge.....		4	7	1	4		1	10					27									1	1	1		3
Medicine Hat.....					1	6	12		4	7	2	1	33				1	1	1	2			4		1	10
Macleod.....						3		3					6													
Okotoks.....						1							1													1
Olds.....						4	1						6									1				2
Pincher Creek.....						1							1													2
Ponoka.....													1											5		5
Raymond.....												2	3													
Red Deer.....			7	2	3								3													
St. Albert.....													15										2	1		3
Strathcona.....		1			19							4	24					5							1	6
Taber.....												1	1											5	1	6
Vegreville.....																1										1
Vermilion.....					1								1													
Wetaskiwin.....			1										1													
Totals.....	2	10	17	40	148	106	38	27	17	13	8	23	449		8	7	14	16	6	5	2	5	11	21	19	114



## CONTAGIOUS AND INFECTIOUS DISEASES IN MUNICIPALITIES—Continued.

MUNICIPALITY	SMALLPOX												TYPHOID FEVER													
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Calgary.....																				2	4	2	4	1		13
Cardston.....																										
Claresholm.....		3											3										2	1	2	5
Didsbury.....																										
Edmonton.....						2							2	14	2	3	2	2	8	9	6	9	23	13	7	98
Fort Saskatchewan.....														1		7	1				10	2		1	1	23
High River.....	3	10			1								14			1							2	1		4
Innisfail.....																										
Lacombe.....																										
Leduc.....																										
Lethbridge.....												1	1				1				1	16		3	2	23
Medicine Hat.....						2							2										7	2		9
Macleod.....																3		1		1	1	1	3	4		14
Okotoks.....									1		1		2													
Olds.....						1							1													
Pincher Creek.....																										
Ponoka.....																										
Raymond.....																					2					2
Red Deer.....																			1		1					2
St. Albert.....																										
Strathcona.....																										
Taber.....																										
Vegreville.....																										
Vermilion.....																			2		3					5
Wetaskiwin.....																										
Totals.....	3	13				6			1		1	1	25	15	2	14	4	3	11	12	28	32	40	25	12	198

MUNICIPALITY	WHOOPING COUGH												TUBERCULOSIS													
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Calgary.....																										
Cardston.....																										
Claresholm.....															1	1						1				3
Didsbury.....																										
Edmonton.....											3	7	10		1	3	2									6
Fort Saskatchewan.....																1										1
High River.....																										
Innisfail.....																										
Lacombe.....																										
Leduc.....																										
Lethbridge.....																										
Medicine Hat.....															1											3
Macleod.....															1		1						1	2		3
Okotoks.....																		1								
Olds.....												1	1							1						3
Pincher Creek.....																										
Ponoka.....																										
Raymond.....																										
Red Deer.....																					1					1
St. Albert.....																										
Strathcona.....													1													
Taber.....																										
Vegreville.....																										
Vermilion.....																	1									2
Wetaskiwin.....																										
Totals.....			1								3	8	12	6	2	5	3	1	1	1	1	1	1	2	2	25



CONTAGIOUS AND INFECTIOUS DISEASES IN RURAL DISTRICTS.

CASES REPORTED 1907.

DISEASE	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Chickenpox.....	2	..	1	..	1	9	..	..	..	..	..	1	14
Diphtheria.....	1	2	21	3	3	1	..	..	13	..	5	6	55
Measles.....	2	1	7	5	25	34	4	5	27	2	2	23	137
Scarlet Fever.....	..	2	..	1	1	12	1	3	2	2	3	15	42
Smallpox.....	4	11	11	5	..	3	..	1	3	1	20	..	59
Typhoid.....	49	46	50	33	2	7	15	12	27	20	21	17	299
Whooping Cough.....	..	..	..	1	..	..	..	..	16	..	..	1	18
Tuberculosis.....	21	11	14	1	3	3	..	..	..	1	1	..	55

CAUSE OF DEATH	TOTAL	AGE									Sex		NATIONALITY													MONTH												TOTAL			
		0 to 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 59	60 to 69	70 and over	Not Specified	M	F	Canadians	Americans	Scottish	Irish	English	French	German	Swedes	Norwegians	Austrians	Russians	Galicans	Others	Unknown	January	February	March	April	May	June	July	August	September	October	November		December	Not Specified	
GENERAL DISEASES																																									
I.—COMMUNICABLE (Epidemic) Diseases.																																									
1. Typhoid Fever.....	88	7	5	30	37	7	2			59	29	39	8	3	3	13		1	3	1	10		3	3	1	4	5	9	8	8	6	5	8	4	15	11	5		88		
2. Smallpox.....	5	2	1	1	1					1	4	1	1			3																							5		
3. Measles.....	26	5	11	9	1					11	15	17	2				1	1								2		1	1	1	1	3	3	1	7	7		26			
4. Scarlet Fever.....	15	10	5							6	9	13	1				1	1								1	2	1	1	2	2	2	1	1	1	1		15			
5. Whooping Cough.....	27	4	13	10						14	13	19	5			1										2	4	4	1	1	2	2	5	1	3	1	3	2		27	
6. Diphtheria and Croup.....	12	8	1	1	1					5	7	10	1					1								2	5	4	2		1	5	1	3	1	3	2		12		
7. Influenza.....	6	2	2	1						3	3	4	1													1						2				1	1		6		
8. Other Epidemic Diseases.....																																									
II.—OTHER GENERAL DISEASES.																																									
1. Pyemia and Septicemia.....	14		1		2	6	3	1	1	7	7	6	4			1		1							1	1		1	2				5	1	1	4		14			
2. Malarial Fever.....	7	7								4	3	7																										7			
3. Tuberculosis and Scrofula.....	112	2	2	8	36	46	13	3	2	59	53	72	9	3	4	4	2	2	4	3		6	2		1	7	11	19	10	9	13	8	10	8	7	5	5		112		
4. Syphilis.....	3	1								1	2	1																										3			
5. Cancer.....	24		1	2		1	9	7	4	11	13	5	4	1	2	6		1	2	1	1			1		3		3	2		3	1		3	4	5		24			
6. Rheumatism and Gout.....	7			1	2	3				4	3	1	1	2													1	2			2				1	1		7			
7. Diabetes.....	8			1		5				7	1	2	1	2		1		1		1					1		1	1			1	1		1	1	2		8			
8. Other General Diseases.....	19	3		4	1	4	3	3	1	11	8	9	5	2	1										1	3	1	2		3	3		3	2			2		19		
9. Chronic Poisoning.....	1									1																													1		
LOCAL DISEASES.																																									
III.—DISEASES OF NERVOUS SYSTEM AND ORGANS OF SENSE.																																									
1. Encephalitis.....	33	12	10	7	2	1	1			15	18	25	4	3		1											3	3	5	3	3	2	5	3	1	1		4		33	
2. Simple Meningitis.....	15	4	2	3	2	4				8	7	12	2														2	2	2	2	1		1	2				1		15	
3. Epidemic Cerebro-Spinal Meningitis.....	6					4	1		1	4	2	2					2										1											6			
4. Congestion and Haemorrhage of the Brain.....	2					1				2		2																										2			
5. Softening of the Brain.....	8					2		3	3	7	1	2	2	1		2											1					1	1	2		2	1		8		
6. Paralysis without Specified Cause.....	3					1	2			1	2																											3			
7. Insanity.....	3					1				3		3				1	1								1		1	1	1										3		
8. Epilepsy.....	7					1	1			3		3															1	1	1										7		
9. Convulsions (not puerperal or infantile).....	7					1	1			6	1	4	2					1								4	1		2										7		
10. Other Nervous Diseases.....	3	1				1	1			3		1	1			1																						3			
IV.—DISEASES OF CIRCULATORY SYSTEM.																																									
1. Pericarditis.....	9			1	1	6	1			5	4	4	2	1	1	1											2		1			1	2						9		
2. Endocarditis.....	36	1		1	1	8	17	5	3	24	12	13	5	4		12		1									3	7		2	1	3	5	1	1	8	5		36		
3. Organic Heart Disease.....	2									2																													2		
4. Angina Pectoris.....	2									1	1	1																										2			
5. Diseases of the Arteries, Atheroma, Aneurism, etc.....	2									1	1	1																										2			
6. Other Diseases of the Circulatory System.....	20	2		1		4	6	5	2	11	9	7	2	1	3			1		1					2	1	5	3	2	1	5	1		1	1	1		20			
7. Diseases of the Sympathetic System.....																																									
V.—DISEASES OF THE RESPIRATORY SYSTEM.																																									
1. Acute Bronchitis.....	18	9	3			1	1	1	3	11	7	11			2	4									1		2	3	3	3	1	3		2		1			18		
2. Chronic Bronchitis.....	5	1								5		1	1	1		2											3											5			
3. Broncho-Pneumonia.....	21	12	5	2						12	9	14	4														1	3	2	1	4	2	3			2	3		21		
4. Pneumonia.....	96	24	7	7	9	25	11	6	7	58	38	56	12	5	5	7	1	2		2	2	1		2		11	11	8	10	14	5	6	2	4	9	4	12		96		
5. Pleurisy.....																																									
6. Congestion of the Lungs (including Pulmonary Apoplexy).....	4	2	1			1				2	2	3	1														1		2			1						4			
7. Asthma and Emphysema.....	8									5	3	3	1	1		2										1	1		1			1	3					8			
8. Other Diseases of the Respiratory System.....	14	7	1	2					1	9	5	11	1			1										4	4	1		2	1	1	1					14			
VI.—DISEASES OF THE DIGESTIVE SYSTEM.																																									
1. Diseases of the Pharynx.....	2		1			1				2		2															1			1								2			
2. Ulcer of the Stomach.....	3									2	1					2											1											3			
3. Other Diseases of the Stomach (Cancer excepted).....	15	4	1		4	4		1	1	11	4	9	2	2													3	2	3	2	2	1		1	1			15			
4. Infantile Diarrhoea and Gastro Enteritis (Cholera Infantum).....	64	55	9							36	28	55	6			2											2	1	2		1		7	30	9	8	2	2		64	





*Provincial Board of Health.*

I desire to say that the Provincial Board of Health was formed on the 26th day of July, with the following members: Dr. J. D. Lafferty of Calgary, Dr. C. N. Cobbett of Edmonton, Dr. F. H. Mewburn of Lethbridge, Mr. Owens, the provincial sanitary engineer, and the provincial health officer, who, under The Public Health Act, is also secretary to the board.

Dr. Lafferty was elected chairman. At the first meetings the Board had the benefit of the presence of Dr. Bryce, chief medical officer of Immigration Department, Dominion Government, in an advisory capacity, whose experience for many years in public health matters in Ontario as chief health officer for the province placed him in a position to offer valuable suggestions during the course of their discussions.

The board has made progress in the arduous work of formulating regulations covering matters of public health. This work is now being revised and completed, and will be submitted to the Executive Council for approval. I believe few people realize the number of complications which arise and the enormous amount of time necessary to satisfactorily formulate the rules and regulations called for under the provisions of The Public Health Act.

## II.—HOSPITALS.

The following hospitals receiving Government aid were inspected during the year:

Medicine Hat General, Medicine Hat.  
Galt Hospital, Lethbridge.  
Edmonton General, Edmonton.  
Holy Cross, Calgary.  
Public Hospital, Edmonton.  
Macleod General, Macleod.  
Misericordia, Edmonton.  
Calgary General, Calgary.  
Pincher Creek Memorial, Pincher Creek.  
Red Deer Memorial, Red Deer.  
Roland M. Boswell, Vegreville.  
General Public, Strathcona.  
United Mine Workers', Canmore.

To which may be added the Bawlf and Pakan Hospitals, and also the Salvation Army Rescue Home at Calgary, which also comes under this inspection.

Generally I have found the conditions with regard to the hospitals good. It is apparent, however, that the present arrangement between the Government and the hospital board with regard to the hospital grant is unsatisfactory to them, as it was stated to me by many of the persons associated with this work that it works a hardship upon them. They claim that the present method of allowing twenty-five cents per diem for paying and fifty cents per diem for non-paying patients, while appearing feasible, does not work out well in practice. It is also found that many of the patients entering as paying patients are unable to, or do not, pay after they have received treatment and are ready to be discharged, thus placing the hospital authorities at a loss. In my opinion, therefore, it would be better if a definite amount per patient were allowed for every patient entering the hospital, irrespective of whether he be a paying or non-paying patient.

Another feature which was brought to my notice was the expense that the different hospitals are put to in providing treatment, care



and maintenance for patients that come from outside the municipalities or districts in which the hospitals are situated, the hospital authorities claiming that they are unable to collect any thing to defray these expenses from such municipality or district where the patient resides and, therefore, the hospital caring for such patient is at a loss.

The present method adopted by most hospitals in admitting a patient upon the order of a physician is not satisfactory. In most cases no enquiries are made previous to the admittance of the patient as to who will be responsible for the payment of the expenses incurred during his stay for treatment, etc., at the hospital. The physician upon whose order the patient is admitted assumes no responsibility and consequently this system, which appears to be the usual one adopted throughout the province, by the hospital authorities, is of little or no value in the protection of the hospital boards from loss.

While most of the hospitals are equipped with fire escapes of the ordinary pattern, yet those of a style suitable for conveying helpless or bedridden patients on stretchers are conspicuously absent.

Herewith is appended a statement showing the number of patients treated at the hospitals, the number of days treatment, the cost per patient per day and the value of charity work done, together with a statement showing their financial conditions.







NO.	HOSPITAL	LOCATION	EXPENDITURE							REVENUE										LIABILITIES					
			Cost of Maintenance	Expended on Buildings	Expended on Furnishings	Interest on loans & Mortgages	Repayme't of loans & Mortgages	Cash on Hand	TOTAL	Proceeds of loans and Mortgages	On hand Jan. 1, 1907	CONTRIBUTIONS					TOTAL	Open Accounts	Interest bearing notes in the bank	Mortgages on Real Estate	Rate of Int	Total in-debtedness Dec. 31 1907	Increase over 1906	Decrease over 1906	
												Local	Gov't Grant July 1 Dec. 31	Gov't grant Jan. 1-June 30	Pay Patients	From other Sources									
1	General.....	Calgary.....	\$21,597.53	\$1,383.07	\$ 875.20	\$ 665.00	\$6,000.00	\$ 25.10	\$30,545.90	\$6,000.00	\$ 635.41	\$2,580.27	\$1,944.75	\$2,518.50	\$15,882.65	\$ 984.52	\$30,545.90	.....	\$11,436.16	\$9,000.00	7%	\$20,436.16	\$1,456.84	.....	
2	General.....	Edmonton.....	9,069.29	40,167.22	992.99	720.00	.....	432.32	51,381.82	31,000.00	2,101.13	1,460.23	1,724.25	2,777.25	8,586.20	3,732.76	51,381.82	.....	49,000.00	.....	.....	49,000.00	29,782.00	.....	
3	Public or City.....	Edmonton.....	11,789.02	7,909.44	2,143.87	830.85	.....	365.15	23,038.33	9,025.00	93.40	288.75	1,079.50	1,981.50	7,920.42	2,649.76	23,038.33	.....	1,284.80	18,025.50	.....	19,309.80	9,530.60	.....	
4	Misericordia.....	Edmonton.....	7,908.96	2,485.31	1,425.67	2,535.63	2,000.00	1,907.22	17,262.79	51.51	1,928.83	3,038.15	1,500.75	2,787.50	5,551.10	2,404.95	17,262.79	.....	2,100.00	50,000.00	.....	52,100.00	.....	\$3,900.00	
5	Galt.....	Lethbridge.....	13,630.06	892.22	1,306.90	.....	.....	2,037.83	17,867.01	.....	2,373.25	1,134.10	1,129.50	1,381.75	11,232.82	615.59	17,867.01	.....	.....	.....	.....	.....	.....	.....	
6	Holy Cross.....	Calgary.....	17,105.25	53,355.69	3,436.35	.....	.....	.....	73,897.29	35,000.00	.....	3,263.50	2,228.00	2,687.75	12,452.57	1,403.05	57,044.87	\$16,852.42	.....	35,000.00	.....	.....	35,000.00	.....	.....
7	Macleod General.....	Macleod.....	4,437.64	1,102.45	119.95	27.15	3,725.00	27	9,412.46	3,271.35	23.01	1,368.90	347.75	606.75	3,755.40	39.30	9,412.46	.....	.....	.....	.....	.....	.....	.....	
8	Medicine Hat.....	Medicine Hat.....	13,524.99	18,847.26	827.45	666.90	19,900.00	301.14	54,067.74	28,900.00	184.26	5,150.10	1,737.50	3,114.25	7,743.11	7,238.52	54,067.74	.....	15,749.40	7,000.00	6%	.....	13,885.63	.....	
9	Pincher Creek.....	Pincher Creek.....	2,769.90	861.00	10.00	8.10	83.92	.....	3,732.92	300.00	376.00	563.50	160.00	178.00	1,429.46	378.78	3,732.92	.....	641.18	.....	8%	641.18	557.26	.....	
10	Red Deer Memorial.....	Red Deer.....	3,286.37	2,590.10	.....	.....	1,221.85	102.87	7,201.19	1,795.75	603.40	1,422.35	326.75	.....	2,609.94	443.00	7,201.19	.....	2,555.79	.....	.....	2,555.79	1,786.65	.....	
11	Roland M. Boswell.....	Vegreville.....	2,837.03	236.42	268.64	28.46	.....	.....	3,370.55	.....	.....	140.00	54.50	263.75	381.00	1,412.45	2,197.20	1,173.35	.....	.....	.....	.....	.....	.....	
12	Strathcona.....	Strathcona.....	7,526.71	.....	428.45	.....	.....	.....	7,955.16	.....	.....	.....	851.00	.....	3,341.85	.....	4,192.85	3,762.31	.....	.....	.....	.....	.....	.....	
13	Isolation.....	Edmonton.....	2,262.35	25,473.82	3,404.19	.....	2,128.88	.....	33,269.24	.....	.....	.....	.....	.....	109.00	.....	109.00	33,160.24	.....	.....	.....	.....	.....	.....	
14	S. A. Rescue & Maternity	Calgary.....	2,324.59	953.24	293.34	.....	.....	217.49	3,788.66	.....	4.55	3,014.06	285.00	570.00	408.00	362.05	3,788.66	.....	.....	.....	.....	.....	.....	.....	





*Incurables.*

The arrangement with the Medicine Hat Hospital in force in previous years for the care of indigent incurables has been continued during the year. Eight incurables were cared for at this institution.

*Charity and Relief.*

The distress of last winter in many cases was great and the Government was called upon to assist cases of indigency and sickness, relief being given in the form of fuel, food, medicine and medical attendance. In all, during the year relief was afforded in whole or in part to some eighteen families. The department is exercising the greatest care with regard to this work so as not to give assistance other than where it is necessary, and then only for as short a time as is needful.

During the year three paupers were buried at the public expense.

L. E. W. IRVING,  
*Provincial Health Officer.*



## 9.—REPORT OF THE SANITARY ENGINEER.

The importance of laying a right foundation is patent to all thinking people, and when this relates to the water supply and sewerage system of a town or city its importance needs not to be dwelt upon. As at the present time there are only a few municipalities that have established waterworks and sewerage systems, and as the province is only in the initial stages of this work it was deemed advisable to secure the services of an experienced engineer who was a specialist in sanitary engineering. The object the Government had in this move was that such a man could advise with and assist the local municipal engineer in his work and thus possibly save the municipality from making serious mistakes or uncalled for expenditures. By the Government employing an expert sanitary engineer and placing his services at the disposal of the local municipalities all the water, sewerage and sewage disposal systems would be established on modern principles and on lines suitable to the present needs of the municipality, but also in such a way as to permit of gradual extension in the future as the demand arose. In addition to any saving in expenditure which might be effected in this way there would be the added advantage that the public health would be amply safeguarded.

During the next few years the new Parliament buildings and many other large buildings will be undertaken by the Government and the services of a sanitary engineer will be very useful in connection with them. Acting with the above ideas in view the Government were fortunate in securing the services of Mr. R. B. Owens, B.A., B.E., a member of the Royal Sanitary Institute and for some years one of the resident engineers of Belfast, Ireland. He comes well recommended as a specialist in sanitary engineering, and it is hoped that the various municipalities will avail themselves of his services which will be given free of cost. Mr. Owens began his work on the 1st of July and was appointed a member of the Provincial Board of Health.

The following is his report for the year:

SIR,—During the six months in which the branch has been in existence much useful ground work has been covered. Considerable time has been occupied in drafting rules and regulations for the consideration of the Provincial Board of Health, covering the subject of sanitary engineering.

The water supply, sewerage and sewage disposal problems of Edmonton, Strathcona, Red Deer and Medicine Hat have been investigated, portions of the plans and specifications of these gone into, and future requirements considered; many of the necessary works are about to be undertaken during the coming summer. On the matter of sewage disposal, advice sought by private individuals and business firms has also been freely given, and a few plans and specifications for the disposal of trade wastes have been considered and approved.

R. B. OWENS,

*Sanitary Engineer.*

## 10.—REPORT OF THE DIRECTOR OF THE LABORATORY.

(In 1904 a chemical and bacteriological laboratory was established at Regina for the North-West Territories. On the organization of the Provinces of Alberta and Saskatchewan in 1905 the Regina Laboratory passed into the hands of the Government of Saskatchewan, an arrangement being made by which the work for Alberta was still carried on there until the middle of 1907. In June, 1907, D. G. Revell, B.A., M.B., Toronto University, was appointed analyst and bacteriologist for the Province of Alberta. In December, Dr. Revell was made director of the laboratory.)

SIR,—The provincial laboratory has been established, as a branch of the department, to carry on work and investigate problems in the interests of the public health, the administration of justice, and the agricultural welfare of the province. The requirements for these purposes will be developed in the order of the urgency and the extent of the interests involved.

Accommodation for the laboratory has been provided in the substantial new building in which the Government offices are temporarily located awaiting the erection of the permanent Provincial buildings. Much credit is due to the Department of Public Works for the care with which the quarters for the laboratory have been constructed and fitted up.

The laboratory has been supplied with a good initial equipment of apparatus for chemical, bacteriological and pathological investigations, and the nucleus of a small working library. A technical assistant has been appointed whose duties are the preparation and care of culture media, mailing outfits, and general attendance in the laboratory.

The planning of the laboratory quarters, supervision of fitting them up, the installing of the apparatus, the general and detailed organization of the work to be undertaken, has been the most important part of my duties in the half year since my appointment. In addition to these, regular routine work has been carried on in the examination of specimens for the diagnosis of diphtheria, typhoid fever and pulmonary tuberculosis. Circulars regarding the scope of the work of the laboratory and directions for sending specimens for examination were sent out to all medical practitioners, postmasters, and secretaries of municipalities and villages in order to bring the laboratory in touch with those to whom it can be useful.

Several medico-legal examinations have been made for the Department of the Attorney General, and by invitation of the Provincial Board of Health I was present in an advisory capacity at its session in Edmonton in October.

In the organization of any new undertaking the first step is the study of the various immediate and future needs to be met and properly provided for within the limits of its scope. Preliminary to undertaking my duties here and purchasing equipment and planning the laboratory a visit was made to several of the leading public health laboratories of Canada and the United States, including those of Toronto, Albany, Boston, New York, Chicago and Minneapolis, also those at Winnipeg and Regina. The information gained and the opportunity to compare the various methods of public health and laboratory work in these places has proved of great value in the initiation and projection of such work in Alberta.



## THE WORK OF THE LABORATORY.

The function of the laboratory is to aid in conserving the public health, in the furtherance of the agricultural interests and in the administration of justice. Its duties thus include examinations to aid in the diagnosis of infectious and contagious diseases in man; chemical and bacterial examination of water for domestic use; chemical and bacterial examination of public milk supplies; examination of food stuff suspected of being injurious to health if used for food; investigation of epidemics of disease in man or animals; investigation of subjects relating to agriculture, analysis of liquors and medico-legal examinations for the Department of the Attorney-General.

These public and provincial matters are carried out gratuitously. As an accommodation to interested parties the laboratory will also make examinations of pathological fluids and tissues from cases of non-contagious diseases for which a small charge is made in these instances. The following more detailed but brief description of some of the proposed work of the laboratory will show more clearly just what the nature of its various functions are:

*Diagnosis of Contagious and Infectious Diseases.*—For this purpose specimens are sent in by physicians by mail and reports on these are sent out by mail and by telephone or telegraph, according to its urgency. This work is given preference over other kinds in point of time, in order that reports may be made as promptly as possible. The most important communicable diseases in which laboratory methods can assist in diagnosing are diphtheria, pulmonary tuberculosis, typhoid fever and rabies.

*Diphtheria.*—This disease is due to a certain kind of germ which flourishes usually in the throat of the patient, but may occur in other parts, such as the ear, nose, mouth, eye, wind-pipe, etc. It is conveyed from the patient to others in various ways, as by coughing, on eating utensils, pencils, toys or other objects handled by the patient and then by others. Any act such as kissing, or any object that may transfer the germs from one mouth to another will spread diphtheria. They may be carried by cats, dogs or rabbits. This disease when not given early and proper treatment is very fatal, especially to children. Fortunately there is a very effective remedy in *antitoxin*, but it must be used early, just as water may be used to extinguish a fire, but the longer the fire burns the more damage it does before the water puts it out. The water will not undo the fire's work, neither will the antitoxin undo the damage wrought in the body by the poisons of the diphtheria germ. It is very important, therefore, to make a diagnosis as soon as possible in the disease and apply the proper remedy. A specimen from a sore throat, when examined under the microscope, shows the presence or absence of the special germ of diphtheria and thus enables the physician to decide whether it is a case of diphtheria or of ordinary sore throat. The proper measures to be adopted, not only for the treatment of the case, but also for the protection of other people, may then be properly applied. The germs remain in the throat often for a long time after the symptoms of the disease have disappeared, and so long as they are there the patient is a menace to other people and should be kept isolated, and, if necessary, in quarantine. The germs, however, disappear early from the throats of some patients, and bacteriological examination shows when the patient may be safely released from quarantine. The certainty with which diphtheria can be diagnosed by the aid of bacteriological examination and the prompt cure which can be effected

by early and sufficient use of antitoxin has robbed this disease of much of its awful ravages and terror. There is no better example of the numerous triumphs of modern medicine than the conquest of diphtheria. Early diagnosis, and the use of antitoxin in proper amounts would probably reduce deaths from diphtheria to very, very few. In the diphtheria branch of the Boston City Hospital in the last ten years there were 190 cases of diphtheria among the attendants (nurses, doctors, and employees) and *not one death* in the 190 cases *because antitoxin was given early and in sufficient doses*.

*Typhoid Fever* is caused by the typhoid bacillus. This germ is the only thing that can produce the disease and it comes only from cases of typhoid. *Every case of typhoid fever comes from a previous case*, just as plants "breed true" and grow only from the seeds or slips of preceding similar plants—wheat grows only from wheat. The germs are given off from the patient in the urine, faeces and saliva or sputum. They travel to the next victim by various channels, and enter the body *only by the mouth*. The most frequent ways by which they get to the mouths of the new victims (other people) are by *water*, by *soiled hands*, by *soiled clothing*, by *flies* and by *milk*. They are also taken in with raw food which has been carelessly handled or exposed. The germs of typhoid cannot *originate* in water and water is probably merely a passive *carrier* of them. It has not been proved that they can *multiply* in water. Water may become infected by the discharges of a typhoid patient which are thrown on the ground or in a privy pit without first being disinfected, the germs then being washed into the well by rain, or thaw water in spring, or being carried there by water soaking through the soil. The germs in the well or other water supply may reach the mouth when the water is used for drinking, or for washing vegetables eaten raw, or rinsing out milk vessels or table dishes, or even for washing the hands, face or teeth. One germ getting into a milk can may multiply so rapidly as to start an epidemic. Boiling the water for one minute will kill all typhoid germs in it. This preventative measure should be taken when there is any chance that the water is infected, and is necessary for all water for drinking, bathing, washing raw vegetables and dishes, especially milk utensils of all kinds. Flies in many instances carry infection from privy pits or pails or from the sick-room to the food in the kitchen or dining room. Flies may travel miles to do this. The windows and doors of the sick-room, kitchen and dining room should be screened. Fly-paper and fly-poison should also be used for further safety. The discharges from the patient should be immediately and thoroughly disinfected. Probably the best thing for this purpose is *freshly slaked lime*. It is cheap and effective. It may be used dry, well sprinkled about the seat and floor of the water-closet and used to cover the evacuations. It is also very handy as "milk of lime" which is merely a thick whitewash (one part of dry, slaked lime to eight or ten of water) and may be placed in the sick-room vessels. Raw food, such as green vegetables, or food not fully protected from flies should be avoided whenever there is any chance of typhoid fever.

The most important disease in Alberta to-day is probably typhoid fever. Smallpox is much rarer and, occurring now usually in very mild form, is also a very much less dangerous disease in a community. In vaccination there is an easily obtained and perfect protection against it. When vaccination is carried out properly and with vaccine made by reliable manufacturers it is almost devoid of risk. That exposure to typhoid fever is not dreaded nearly as much as to smallpox is because the contagious character of the latter is so well known, while many people do not know that typhoid is "catching"



and is readily transmitted through many channels of infection. As yet we have no cure for typhoid fever and once it is contracted it will run its course; therefore, our best energies must be directed to prevention of it.

*Pulmonary Tuberculosis.*—This, known also as “Consumption,” is caused by the *bacillus tuberculosis*. It is spread in several ways but the most important are by the *sputum* of persons with consumption and by *milk* from infected cows. When the disease has advanced so far as to cause ulceration in the lungs, the germs may be found by microscopic examination of the sputum. Similarly they may sometimes be found in milk, in which they may be secreted even when the udder of the cow is not diseased. As in the cases of most infectious diseases there are three “factors” (or circumstances) which must combine before the disease gets a footing. These are *the germ, the channel* by which it gets from one individual to another, and *suitable soil* in the body of the new victim. Persons who are in good health are very much less apt to take consumption than are those who are run down, or whose natural powers of resistance are impaired. It will readily be understood that it is very important—

1. To know where the germs are, by the diagnosis of every case.
2. To have all consumptives *burn or disinfect their sputum*.
3. To have all *milch cows free from tuberculosis*.
4. To *keep oneself in good health*.

Samples of sputum sent by physicians to the laboratory are examined free of charge and a report sent to the physician.

*Rabies* is a public menace from which Alberta appears to be happily free this year. But the disease is so common in the older parts of Canada and the United States that it is very likely to be introduced into this province sooner or later, or to be brought in by wolves, coyotes or other animals of the dog kind. Rabies or hydrophobia is transmitted only by the bite of an affected animal and *never arises spontaneously*. It does not appear in an animal until some time after the bite, but it is almost invariably fatal,—always so in dogs. Hence any dog suspected of having hydrophobia should be safely shut up and kept secure until it either dies or recovers. If it recovers or lives a week after showing symptoms, it did not have hydrophobia. If it dies with the symptoms of hydrophobia the head should be packed in ice and shipped by express to this laboratory. It is also required by Dominion statute to notify the Dominion authorities. Dr. J. C. Hargraves, of Medicine Hat, is in charge of the public veterinary work for Alberta and should be promptly notified of any case of rabies.

*Water Examinations.*—Besides typhoid fever germs, water may also carry germs that cause diarrhoea and dysentery. When present these are always due to pollution of the water with human excrement. Of course, diarrhoea and dysentery may be, and usually are, due to other causes than polluted water. Everybody knows how essential pure, uncontaminated water is to the health of a community, and how desirable it is to find out if the water is infected, or contaminated. For this purpose examination of the surroundings of the well, spring, or stream is the quickest and easiest means. Chemical and bacterial analyses are also valuable *when carried out by means of proper samples*. In many instances, however, the history of the cases in an epidemic of typhoid or diarrhoeal disease and an intelligent inspection of the water supply are sufficient to dispel or confirm any suspicion attaching to the water. This local study of the water supply and of the typhoid cases can be made much more quickly than the chemical and bacterial examinations and is often more significant and certain in its indications.

Such local examinations should be made in every instance and if the water is thereby evidently to be regarded as suspicious it should be boiled for every purpose, or the supply (well or spring) should be abandoned. If an analysis is desirable the samples must be properly taken and cared for according to directions given in a special circular sent out by the laboratory to medical health officers and local boards of health. Such examinations are made only when there is a definite reason to suspect the water to be contaminated. Water is often unjustly blamed for causing sickness, and again it is often used when its surroundings are such that it should be unhesitatingly condemned without the needless trouble and expense of a chemical examination.

It is exceedingly important for private wells to be properly located, well lined and covered, and scrupulously protected from any possibility of pollution. The curbing should be carried a foot above the ground, and the pump stand (or well-cover) must be water-tight and sloped so that rain and snow-water will run off. The well should be fenced in to keep poultry and cattle away from it, and the pump should have a spout to carry the water clear of the well-top. A poor well-cover is a standing menace to the purity of the water. One with openings or holes through which mice, frogs or filth from soiled boots can fall or be washed into the well should be immediately repaired or replaced by a new one of good construction. This is a duty of the well-owner which must be attended to before chemical or bacterial examination will be undertaken by the laboratory, as this latter work is necessary and warrantable *only when there is doubt as to the purity of the water* owing to the possibility of concealed pollution underground. Wells are much more frequently contaminated from the top than underground.

The number and kinds of bacteria in water change quickly in samples if these are transported long distances or if much time elapses before examination of them is begun. Hence bacterial examination should usually be begun in the locality of the water supply under investigation. Chemical analysis of water is so delicate that the specimen must be most carefully obtained and guarded against the slightest contamination. When such examinations are necessary, proper bottles for samples will be furnished by the laboratory together with exact directions for getting and shipping the specimens of water. Analysis of water can be undertaken only when the samples are taken according to directions and in outfits supplied by the laboratory.

*Milk Analyses* are made to determine the quality as regards amount of butter-fat, and the use of preservatives or adulterants. It is very important to have the milk properly sampled, for which purpose it is essential to stir the contents of the can thoroughly. The samples should be packed in ice and sawdust for shipment to the laboratory. Bacterial examinations of milk are often valuable in ascertaining the presence of disease in dairy cows and the care with which the milk is handled. Thorough and frequent inspection of dairies and of the whole process of distributing the milk is a most important duty of local health authorities.

It should be emphasized that *cleanliness* of the milk is of greater importance than *richness*. The watchwords for good milk are "*cow, clean, cold and quick.*" The cow must be healthy, well-fed and well-cared for in order to produce wholesome milk. The greatest cleanliness must be used to avoid hairs, dust or dirt of any kind getting into the milk. The cow must be clean, especially the udder and teats; the milker must be clean, especially his hands, but also his clothes;



“dry milking” is alone allowable; the milk utensils and dairy must be scrupulously clean. The milk, after being drawn from the cow, must be cooled at once to prevent or limit growth of the bacteria that are sure to get in it in spite of every care. The colder the milk is kept the better. It should not be higher than 57° F. or better below 50° F. And quickness is necessary to get the milk from the producer to the consumer with as little delay as possible, because even cold, clean milk steadily deteriorates.

The utmost care is necessary in regard to milk because—

1. It is so much used as a *food for children*.
2. It is one of the things in which *bacteria grow most rapidly* at suitable temperatures.
3. It is more *exposed to contamination* (getting bacteria in it) than is any other kind of food.
4. It is generally *used raw*, that is without cooking.

D. G. REVELL,  
*Director.*

## 11.—APPENDICES.

## APPENDIX A.

## THE ALBERTA HORSE BREEDERS' ASSOCIATION.

*Officers.*

Hon. President.....	A. C. Rutherford, Premier of Alberta.
President.....	J. A. Turner, Calgary.
1st Vice-President.....	D. Cargill, Seven Persons.
2nd Vice-President.....	Wm. Moodie, De Winton.
Secretary and Managing Director.....	E. L. Richardson.

*Breed Directors.*

Clydesdales.....	H. Banister, Davisburg.
Shires.....	G. Hoadley, Okotoks.
Percherons.....	W. B. Thorne, High River.
Hackneys.....	E. C. Hallman, Airdrie.
Thoroughbreds.....	Bryce Wright, De Winton.
Coach Breeds.....	G. E. Goddard, Cochrane.
Standard Breeds.....	F. W. Ings, Nanton.
Ponies.....	C. E. Brown, Calgary.
Suffolk Punch.....	Geo. Jaques, Lamerton.

*General Directors.*

F. Bedingfield, Pekisko.	D. Thorburn, Davisburg.
Dr. Hargrave, Medicine Hat.	Duncan Clarke, Jr., Gleichen.
R. C. Reid, Olds.	

*Honorary Directors.*

Hon. W. T. Finlay, Minister of Agriculture, Edmonton.
Dr. J. G. Rutherford, Live Stock Commissioner, Ottawa.
C. W. Peterson, Calgary.

## APPENDIX B.

## ALBERTA CATTLE BREEDERS' ASSOCIATION.

## REPORT OF THE SECRETARY FOR 1907.

Mr. Chairman and Gentlemen,—I beg to submit herewith the Eighth Annual Report of the transactions of the Alberta Cattle Breeders' Association, being for the year 1907.



## SEVENTH ANNUAL AUCTION SALE OF CATTLE.

The date of the Seventh Annual Auction Sale of bulls was unfortunately set too early in the year. This sale was held on April 1st to 4th, and while this date is too early in any year, it was a particularly inconvenient date for the sale of 1907, owing to the hard winter and the lateness of the spring. At the last annual meeting held during this sale it was directed that the next sale be held about the 20th of May, which I fear is rather going to the other extreme. The result of the sale will show more clearly whether the date is a convenient one or not. The setting of the date of the auction sale at the latter part of May made it impossible for the Horse Breeders' Association to hold their annual show at the same time, which, without a doubt, is a very decided detriment to each event. There are many cases where a visitor comes to take in the horse show, and decides after he arrives here to buy one or two, and sometimes even a whole carload of bulls, and on the other hand the attendance at the cattle sale also assists the horse show. Another very serious objection to such a late date for the cattle sale is, that the animals for the fat stock show have to be kept over until too late a date. It was at first thought that it would be possible owing to the lateness of the cattle sale to hold the fat stock show with the horse show, but on further consideration it would appear that if the cattle sale and the fat stock show were not held together each one would be seriously affected, particularly in view of the fact that nearly every person who enters stock for the fat stock show also has animals in the sale, and it would be impracticable for him to stand the expense or to be away from home to attend both events if they were held separately. It would appear, therefore, to be of the utmost importance to the success of the Alberta Live Stock Association's shows and sale, that their events be held at one time, and each association should be prepared to give and take a little in the matter of dates, so that its events could be held together. Unless this is accomplished, it is impossible to work up the interest in either event, which could otherwise be secured, and it must be evident to you all that the expense of running these events separately is greater.

Although, as above mentioned the 1907 sale was held too early in the year, the prices realized were very satisfactory for such an early sale. 192 head were sold at an average price of \$75.72, or a total of \$14,538.50. The animals sold were made up as follows:

50 Herefords, average price.....	\$79.54
132 Shorthorns, average price.....	\$74.64
1 Galloway .....	\$55.00
9 Aberdeen Angus, average price.....	\$72.67

The highest priced animal was sold by James Sharp, of Lacombe, to P. M. Bredt, of Regina, for \$170.00. On account of the early date of the sale, the cost of feeding the animals from April 1st to about the middle of May was transferred from the seller to the buyer, and the prices realized were, therefore, as good as \$10 or \$15 extra per head would be if the sale was held in May, particularly in view of the seller being relieved of the feeding of the animals during seeding. I attach herewith a statement which shows the number of animals sold, and the average prices obtained at each of the sales. The statement gives a fair idea of the help that the association has been to the breeders, and also to the ranchers of Alberta as well as Saskatchewan and British Columbia. Up to the present no less than 1,547 animals have been sold for a total amount of \$138,185, which is by far the largest number of animals sold by any association in Canada or the United States.

One of the chief features in the building up of this sale has been the splendid transportation arrangements which have been in force, making it possible to bring an animal from any part of Alberta to the sale for \$2, and to have animals delivered in Saskatchewan, Alberta and British Columbia for the nominal charge of \$2 per head. Another feature which has very materially assisted in building up the sale, is that on account of the sale being organized when the number of breeders of pure bred stock could be numbered on the fingers of your two hands, the breeders got into the habit of depending on this sale practically altogether for the disposal of their stock, and the buyers were in the same position respecting the purchase of stock. At the present time no doubt 90% of the pure bred sires that are sold in Alberta, are sold through this sale, and the breeders are entering their best stock for sale here. As long as the breeders continue to enter practically all their annual output of bulls in this sale, its success will be assured, as this will be the means of inducing the buyers to continue to purchase at this sale annually, and not to adopt the principle of purchasing by picking over the herds on the farms, which has been necessary in older provinces where sales were not held.

#### *Financial Statement.*

The financial statement which will be presented to this meeting shows that the finances of the association are not in as good a condition as they were last year. The balance sheet shows a deficit of \$194.82. The chief reason for this is that the Dominion Government grant, which in previous years has been credited to the Cattle Breeders' Association, last year was divided up equally between the fat stock show and the horse and cattle associations. On this account it has been found that if the expenses connected with the association were not reduced, it would be impossible to carry on the work of the associations without increasing the fees. Your directors, therefore, decided that the expense of providing hay should be placed directly upon the owners, instead of being paid by the association. This will assist considerably in keeping down expenses, and will also be the means of preventing so much waste of hay.

I have been informed by Dr. Rutherford, Dominion Live Stock Commissioner, that it will be necessary to make some change in the rules of entry in order to be eligible for the Dominion Government grant for 1909. It was the intention of the Dominion Government not to pay this grant in 1908, but in view of the financial state of the associations, the Hon. Minister of Agriculture kindly consented to pay the grant this year. It is to be hoped that some change in the rules can be agreed upon, which will be satisfactory to all concerned. The thanks of the association are due to the Alberta and Dominion Departments of Agriculture for financial assistance granted by them, without which it would be impossible for the associations to carry on the work. In addition to the financial aid which is given the associations by the Government, the assistance given in other ways is very much appreciated, particularly for the supply of judges and speakers from year to year.

#### *Spur Track.*

For the past four or five years we have been endeavouring to have a spur track put into the exhibition grounds for the convenience of the stock men. I am glad to be able to state that the city council have decided to advance the necessary money to put a spur in just opposite the stables on 13th avenue. This will be a very great con-



venience to the shipment of stock to and from the sale, as the loading platform will now only be about three blocks from the barns. It is the intention to extend the spur on to the exhibition grounds just as soon as possible.

*National Live Stock Convention.*

In February last, your Honourary President, Mr. John A. Turner, Vice-President James Sharp, and the undersigned, attended the National Convention of Live Stock Breeders at Ottawa. Several questions of importance to western breeders were discussed, and as each member will be furnished with a copy of the report of the convention, I will not report at length herein. The delegates also attended the meetings of the various breed associations held after the convention in Toronto, and endeavoured to look after the interests of western breeders.

Respectfully submitted,

E. L. RICHARDSON,  
*Secretary and Managing Director.*

STATEMENT OF ASSOCIATION AUCTION SALE

Year	Total number	Average price	Total receipts	SHORTHORNS				HEREFORDS				GALLOWAYS				ABERDEEN ANGUS				AYRSHIRES			
				Bulls		Cows		Bulls		Cows		Bulls		Cows		Bulls		Cows		Bulls		Cows	
				No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.
1901	64	\$ 85.17	\$ 5,451.00	44	\$90.57	19	\$73.73	...	...	...	...	...	...	...	...	1	\$45.00	...	...	...	...	...	...
1902	220	95.80	21,077.00	183	99.91	8	76.25	14	\$91.42	...	...	...	...	...	...	2	72.50	10	\$68.50	3	\$51.30	...	...
1903	268	96.60	25,890.00	173	93.65	65	96.63	19	135.00	...	...	...	...	...	...	9	83.33	...	...	1	15.00	...	...
1904	293	99.79	29,245.00	131	104.23	49	65.22	76	127.17	14	\$91.42	...	...	...	...	5	107.00	1	60.00	...	...	...	...
1905	340	69.28	23,557.00	173	67.84	55	63.45	93	76.21	8	65.00	...	...	...	...	4	62.50	...	...	...	...	...	...
1906	170	108.37	18,426.50	95	106.12	23	72.17	37	138.91	7	78.57	...	...	...	...	6	139.16	...	...	...	...	...	...
1907	192	75.72	14,538.50	132	74.64	...	...	50	79.54	...	...	...	...	...	...	9	72.67	...	...	...	...	...	...

HIGHEST PRICES REALIZED.

1901—\$250.	Shorthorn Bull sold by P. Talbot & Son, Lacombe.
1902—\$290.	" " " Jno. Ramsay, Priddis.
1903—\$255.	" " " O. Palmer, Lacombe.
1904—\$285.	" " " Hon. W. Beresford, Calgary.
1905—\$225.	" " " D. Sinclair, Innisfail.
1906—\$365.	" " " A. F. McGill, Lacombe.
1907—\$170.	" " " James Sharp, Lacombe.



## ALBERTA CATTLE BREEDERS' ASSOCIATION.

*Financial Statement, 1907.**Receipts.*

Balance from 1906.....	\$ 315.61
Membership Fees.....	79.00
Donations.....	75.00
Entry Fees.....	249.00
Freight.....	875.05
Proceeds of Sale.....	14,638.50
Grants.....	816.75
Hay.....	240.00
Share of Gate Receipts.....	60.70
Commission.....	325.95
Exchange on Cheques.....	10.25
Balance Overdraft.....	194.82
	<hr/>
	\$17,878.63

*Disbursements.*

Freight.....	\$ 823.13
Prizes.....	175.83
Postage, Stationery, Office and Grounds Expense and Extra Help.....	579.28
Printing and Advertising.....	407.34
Proceeds of Sale.....	14,638.50
Hay, Straw and Sawdust.....	489.15
Salaries, Secretary and Stenographer.....	675.00
Travelling Expenses, Convention Regina.....	65.00
Sundries.....	24.50
	<hr/>
	\$17,878.63

Audited and found correct.—F. R. EXHAM, *Auditor.*

*List of Members for 1906 up to March 25th, 1907.*

T. D. Lewis, Claresholm.	Mrs. C. Ellis, Innisfail.
James Tough, Edmonton.	F. McGregor, Airdrie.
S. M. Mace, Pekisko.	Robt. Pratt, De Winton.
H. Bourne, Shepard.	Klaas Peters, Didsbury.
H. F. Flewelling, Lacombe.	S. W. Findlater, Lacombe.
Elliott Bros., Airdrie.	Jos. McPherson, Calgary.
James Wilson, Innisfail.	H. W. Metcalf, Lacombe.
P. F. Huntley, Lacombe.	Jno. Duncan, Innisfail.
J. T. Parker, Lacombe.	J. L. Walters, Lacombe.
Hy. Talbot, Lacombe.	C. W. Peterson, Calgary.
Eric Sandeman, Cowley.	J. & W. Sharpe, Lacombe.
O. Palmer, Lacombe.	Jno. Campbell, Bowden.
A. F. McGill, Lacombe.	Lew Hutchinson, Duhamel.
J. H. Fay, Blackfalds.	Jno. Morton, Calgary.
Indian Industrial School.	P. Talbot & Sons, Lacombe.
Bryce Wright, De Winton.	Jno. Robinson, Innisfail.
James Turner, Calgary.	Wm. Postill, Red Deer.
R. L. Boyle, Crossfield.	Thos. Talbot, Lacombe.
Hugh McPherson, Calgary.	Jno. Clarke, Jr., Gleichen.
A. W. Latimer, Bowden.	A. Fletcher, Mound.
David Martin, Gladys.	A. Saunders, Lacombe.
Copley Bros., Calgary.	R. E. Johnston, Lacombe.
Geo. Duncan, Innisfail.	Jno. Ramsay, Priddis.
J. A. Turner, Calgary.	C. W. Perry, Calgary.
R. K. Bennett, Midnapore.	Ed. Waines, Springbank.
Thos. MacMillan, Lineham.	Geo. Hoadley, Okotoks.
Wm. Moodie, De Winton.	A. H. Bolton, Gladys.
Wm. Swanson, Lacombe.	A. P. Olson, Red Deer.
Chas. Moore, Bowden.	P. Makepeace & Son, Lacombe.
Walter Moss, Shepard.	Thos. D. Edgar, Edmonton.
J. McK. Andrews, Davisburg.	Capt. Trayner, Cochrane.
Thos. Laycock, Calgary.	C. E. Walker, Calgary.

J. D. Chambers, Crossfield.  
 C. E. Byron, Jumping Pond.  
 Geo. Geary.  
 Wm. Niddrie.  
 W. Beresford, Calgary.  
 R. Shepard, Strathcona.  
 Wm. Lineham, Okotoks.  
 Chas. Shattuck, Davisburg.  
 H. Banister, Davisburg.  
 W. J. Tregillus, Calgary.  
 Fred. Cowan, Kansas.  
 W. C. Jamieson, Calgary.  
 Jno. Atsinger, Blackfalds.  
 W. J. McClure, Innisfail.  
 W. H. Maude.  
 S. R. English, Warwick.  
 W. E. Tees, Tees.  
 E. D. Adams, Calgary.  
 D. Sinclair, Innisfail.  
 Reid Bros., Cochrane.  
 J. Horner, Macleod.  
 Imp. Cattle Ranch Co., Winnipeg.  
 Wm. Gier.  
 J. H. Grose, Valley City.  
 Swift Bros., Clover Bar.  
 D. Sinclair, Innisfail.  
 H. K. Peters, Didsbury.  
 J. D. Chamber, Crossfield.  
 Pat Turner, Wetaskiwin.  
 R. Bennett.

Innisfail Agriculture Co.  
 E. J. Fream, Innisfail.  
 F. F. Malcolm.  
 D. Thorburn, Davisburg.  
 Lethbridge Agric. Society.  
 Dr. J. B. Harrington, Lacombe.  
 H. H. Jenkins, Pincher Creek.  
 Thos. Daly, Edmonton.  
 J. W. Mohler, Wetaskiwin.  
 F. R. Cathro, Calgary.  
 Wm. Anderson, De Winton.  
 James McNichol, Blackfalds.  
 A. Naessens, Davisburg.  
 J. H. Scott, Innisfail.  
 Chas. Moore, Bowden.  
 Robt. McPherson.  
 H. W. Watkins, Olds.  
 Wilson Bros., Red Deer.  
 F. A. Cull, Canyon.  
 Parker & Fraser, Lacombe.  
 F. J. Taylor, Lamerton.  
 O. E. Brown, City.  
 A. Saunders, Lacombe.  
 A. C. Hare, Earlsville.  
 Jacob Hamm, Didsbury.  
 Jas. Shouldice, Gleichen.  
 Wm. Thirsk, Wetaskiwin.  
 W. V. Mencke, De Winton.  
 W. Golley, Edmonton.  
 T. Kennedy, Camrose.

## APPENDIX C.

### FIRST ANNUAL REPORT OF THE ALBERTA NATURAL HISTORY SOCIETY.

The first annual meeting was held in the Orange Hall at Innisfail on the afternoon of Wednesday, November 28th. Owing to a railway accident the members from the north were unable to be present. Dr. H. George, the president, occupied the chair.

#### THE PRESIDENT'S ADDRESS.

I assure you that it is one of the proudest moments of my life that I am able to address you as the first president of a society that has long been my ambition to see started in the Province of Alberta. I hope the society will last for many years and become one of the most esteemed institutions of this land of our adoption. Canada is the finest jewel in the crown of Great Britain, and Alberta is well on the way to being the finest jewel in the crown of Canada.

It is a red letter day in the history of the town of Innisfail, that she has been chosen as the place where is held this first meeting of the Alberta Natural History Society. Most people know that ever since I have been a resident of Alberta I have been an ardent lover of nature, and the fame of the Innisfail Museum, which was opened to the public a year ago last January, has travelled far and wide.

I must give you a few points of history in connection with the work of this society. In 1899. Mr. Percy B. Gregson, of Blackfalds, who is known to nearly everybody in this district and who is one of



the best, if not the best, entomologists in Alberta, formed a society called the North-West Entomological Society. The fourth annual meeting of the society was held in Calgary on November 5th, 1902, and at that meeting it was dissolved and the Territorial Natural History Society organized, thereby enlarging the scope of the work and attracting many more nature observers who were interested in the study of other branches of nature. At that meeting the officers elected for 1903 were the following:

- President—P. B. Gregson, Blackfalds.
- 1st Vice-President—C. W. Peterson, Regina.
- 2nd Vice-President—A. G. Wolley-Dod, Calgary.
- Secretary-Treasurer—T. N. Willing, Regina.
- Branch Directors—*Entomology*—F. H. Wolley-Dod, Calgary;  
Rev. J. Hinchcliffe, Red Deer.
- Botany*—C. Nivens, Prince Albert; E. B. Hutcherson, Regina.
- Ornithology*—Dr. H. George, Innisfail; F. Dippie, Calgary.
- Ex-Officio Director—The Commissioner of Agriculture, N.W.T.
- Curators of Museums—Blackfalds, P. B. Gregson; Calgary, J. F. Boyce; Regina, T. N. Willing.

A resolution was unanimously adopted urging the Territorial Government to provide at as early a date as possible the necessary accommodation for a public natural history museum. As a nucleus for the formation of the museum at the Territorial Capital, a quantity of botanical and entomological material has been placed at the disposal of the society by Mr. Willing and will be displayed when adequate accommodation is provided. This, I take it, is in the possession of Mr. Willing at Regina and will still form the nucleus of a provincial museum for the Province of Saskatchewan. The following property has been transferred from the old society to the new and is in the possession of the curator at Blackfalds: Coleoptera, 700 species; Lepidoptera, several hundred species and varieties; other small collections of entomological objects. Botany, a collection of local plants, noxious weeds, seeds of weeds and miscellaneous fossils. All the above is, I hope, still in the hands of Mr. Gregson at Blackfalds and will either remain there as a nucleus for the Blackfalds museum or go to the future provincial museum at Edmonton.

The next annual meeting was held in the Alexandra Hall at Calgary on the 18th of February with a large attendance. Mr. Gregson and Mr. F. H. Wolley-Dod gave very interesting lectures on insects, illustrating them by magic lantern slides which were greatly appreciated. A resolution was added to the constitution to the following effect: That local branches may be formed with power to elect their officers and the president of each such branch shall be a director of the society. The election of officers for 1904 resulted as follows:

- President—P. B. Gregson, Blackfalds.
- 1st Vice-President—F. H. Wolley-Dod, Millarville.
- 2nd Vice President—Dr. H. George, Innisfail.
- Secretary-Treasurer—T. N. Willing, Regina.
- Curators and officers as before.

The president's address was admirable, and Mr. F. H. Wolley-Dod followed with a paper on the Lepidopterous Insects of 1903. I then gave an address on "The Birds of Prey of Alberta," illustrating the same with specimens of their eggs and pictures of the birds, endeavouring to point out to the farmer and public at large the hawks, owls, etc., that were beneficial and should, therefore, be preserved, and those that did a great deal of harm and should, if not exterminated, at least be kept within bounds. Gathering records of bird migration was brought up at this meeting by Messrs. G. Lang

and G. C. Harvey, of Indian Head. This is a marked feature in this province. By far the greater portion of the birds are migratory, coming here as a rule in the warm seasons to breed and departing in winter, though some spend their winters here and their summers in the frozen north. Everybody can jot down the date when he first and last sees a bird during the season. If this were systematically done throughout the length and breadth of Alberta what an interesting report it would make every year. Mr. Willing gave a very interesting report for the Regina district.

The next annual meeting was held on the 30th of December, 1904, at Calgary, members being present from Calgary, Blackfalds, Innisfail, Millarville and other points.

The president, Mr. Gregson, occupied the chair.

Mr. Gregson, in his address, showed how the society was becoming known and accomplishing good. In closing he said: "By faithful and diligent observation and promptness in publishing the results of that observation, we will build up a society whose work will be counted one of the greatest benefits to agriculture."

The report of the Innisfail branch was next read by Dr. George in the absence of the president, Mr. W. Geary, showing that four meetings had been held during the year at which papers had been read, specimens shown and notes given.

Mr. Willing then read the Regina report.

A very interesting paper was then read by Mr. F. H. Wolley-Dod entitled, "Butterfly and Moth Collecting." This paper was full of information as to catching, preserving and identifying specimens.

I then gave a paper on "The Rodents of Alberta," followed by Mr. N. B. Sanson on "Wild Flowers of the Rocky Mountain Park."

Bird migration notes were again supplied by Mr. George Lang.

The election of officers for 1905 resulted as follows:

President—Dr. George, Innisfail.

1st Vice-President—F. H. Wolley-Dod, Millarville.

2nd Vice-President—N. B. Sanson, Banff.

Secretary-Treasurer—T. N. Willing, Regina.

Naturally I wanted the annual meeting for 1905 to be a success, so I wrote in plenty of time to Mr. Willing, the secretary, asking when and where the annual meeting was to be held and what would be the future of the society when the new provinces were formed. To my surprise I have never received an answer to that letter and so 1905 passed without the annual meeting of the Territorial Natural History Society. I do not know what Saskatchewan and Mr. Willing have done since the division into the two provinces, but I am looking forward to the annual report of the Department of Agriculture for 1905 to see what is said. This, gentlemen, is roughly the history of the Territorial Society.

Last February I went to Edmonton to interview the Minister of Agriculture, the Hon. W. T. Finlay. I found both the Minister and the Deputy Minister interested in what I told them, and I not only got permission to call a meeting for the purpose of establishing a Natural History Society for the Province of Alberta, but also that a grant would be placed in the estimates for the purposes of the society. So I issued hand-bills and called a public meeting to be held in the Council Chamber at Innisfail for March 14th. I also wrote and invited all the prominent people that I knew were interested in the subject. The meetings were duly held and some 16 gentlemen gave their names as members. Officers were elected for 1906 and a committee was appointed to draw up a constitution and by-laws. These were



at once put into the printers' hands and finished late in July. I at once set about getting members and a meeting was called at Innisfail, August 1st, to form a branch of the Alberta Natural History Society. My ambition was to have at least 50 members for the first year, and I am glad to say we have some 60 paid up members. Among others I am pleased to name: His Honour G. H. V. Bulyea, Lieutenant Governor of Alberta; Hon. A. C. Rutherford; Hon. Frank Oliver; Hon. W. H. Cushing; J. A. Simpson, M.P.P.; Geo. Harcourt, B.S.A., Deputy Minister of Agriculture; Senator L. G. De Veber, M.D., and Lieut. Colonel Wyndham.

In October, Mr. Geary, President of the Innisfail Branch, and myself held a meeting at Red Deer to organize there, and I am happy to say the Red Deer Branch was inaugurated on November 20th last.

#### OBJECTS AND AIMS OF THE SOCIETY.

Now as to the objects and aims of this society. It is to know thoroughly the whole of the natural history of this great province. Some books have been written on all branches, but as yet only a small fraction of this new country has been touched upon. Another great endeavour of this society is to apply knowledge gained, and help others, especially farmers, to recognize their friends and foes,—animals, birds, insects, plants, etc. In this way beneficial individuals are preserved and noxious ones destroyed. Supposing a farmer finds his garden being injured by some insect, it is for us to inform him what the insect is, what it does, and how it is to be got rid of. If we do not have the required information we go to our books and find out, and so impart the knowledge gained. Many beneficial birds are destroyed through ignorance. A man sees a strange bird and at once destroys it to satisfy his curiosity by looking at it and handling it, and then often just throws it away or nails it on his barn wall, not even taking the trouble to make notes as to its colour, length of wing, whether a swimmer, percher, or other order of bird, so that it might be identified by some one who knew. Now, when this society has once pointed out and caused to be known a beneficial bird, no one will destroy the same but watch over and preserve it. The same applies to animals, insects, plants, etc. Supposing the society points out some noxious weed and says it should be destroyed, would not all thinking persons destroy that weed wherever they came across it?

Another great object is to form museums; not only a provincial museum at the Capital but local museums. This province is so large that each division has a natural history of its own, what is found in one part not being found in another, so that each chief town of a division should have its own museum, containing local specimens and also a library containing works on each subject to which the people should have free access. With a country like this, rich in new specimens of every kind, what a shame it is that when anything striking has been found, or an extra fine specimen killed, it is at once sold and shipped out of the province. Take the history of this province apart from its natural history, how quickly people have settled up this country and interesting facts as to places where things have happened, houses in which historical events have taken place are handed down by word of mouth instead of by authentic notes. To make this a little more clear, who has an original specimen of the first newspaper printed and issued in the Territories? What about the history of the Great Hudson's Bay Co.? Where are notes kept

of the old happenings; where are the life histories of the pioneers of this country? It is not too late to obtain and preserve some of these. Even in my short life in Alberta what changes I have seen! I came to live in Innisfail in 1893, and I have a scrap book which I call my history of Innisfail. To us it is very interesting, containing dated notes, newspaper cuttings, photos of people and old buildings, as well as new ones as they go up. When Hon. Frank Oliver visited my museum and was shown this book he said how he wished some one had done the same for Edmonton from the time he first went there. I may say I did the same for Calgary from 1889 to 1893. In ten years of this country changes occur that would take a hundred years of time in the older countries. Now a naturalist cannot take a walk anywhere, even in the busy streets of a city without observing some little thing that makes him wish to know more. Therefore, he enquires and reads. I was only in Edmonton four days last spring but I believe I could tell you all, or nearly all, the mounted animals and birds I saw, where they are and what they are.

Now the children! What a grand thing it is to get children to be observant and interested in nature's works! How beneficial for the future, what a lot of knowledge is gained and suffering averted! The average boy finds a bird's nest in breeding time, looks in it and sees if there are eggs, takes them home and strings them up, but if you ask what the nest was made of, what kind of a bird was it, even the date when he found it, can he answer you? It teaches children not to be thoughtlessly cruel and also to be accurate and call things by their proper names. Now I took up the other day a farmers' weekly periodical, I am not sure which one it was, and I saw a good illustration of the meadow lark but underneath the picture it was called the brown thrasher, two very different birds. Now, how many hundreds of readers of that paper will point out a meadow lark and in all good faith call it a brown thrasher. Time is flying and we have only a short while in which to get through our work, as you know we only meet once a year and after the work I want our visitors to see my museum. It will show them what one man can do in the way of collecting in the short space of twenty years. So with your permission I will bring this very imperfect address to a close and ask the secretary to proceed to the next order of business.

#### THE SECRETARY'S REPORT.

After consultation with the Department of Agriculture at Edmonton, Dr. George, of Innisfail, the last resident of the Territorial Natural History Society, asked me to issue a notice calling a meeting of the members of the Territorial Natural History Society, residing in the Province of Alberta, at Innisfail on March 14th, 1906, to inaugurate a Natural History Society for the Province of Alberta, elect officers, frame by-laws, etc. The meeting was duly held on March 14th, and it was decided to form a Natural History Society for the Province of Alberta.

The name chosen was, "The Alberta Natural History Society."

The officers of the society are to consist of: An honorary president, two honorary vice-presidents, president, two vice-presidents, a secretary-treasurer, auditor, and board of directors consisting of five members, to which shall be added the presidents of branches as they are formed.

The election of officers resulted as follows:

Honourary President—Hon. W. T. Finlay, Minister of Agriculture.



1st Honorary Vice-President—Geo. Harcourt, B.S.A., Deputy Minister of Agriculture, Edmonton.

2nd Honorary Vice-President—P. B. Gregson, Blackfalds.

President—Dr. Henry George, Innisfail.

Vice-Presidents—F. H. Wolley-Dod, Millarville; N. B. Sanson, Banff.

Secretary-Treasurer—Jas. Jenson, Innisfail.

Directors—F. Dippie, Calgary; A. Hudson, Millarville; C. Garrett, Didsbury; J. T. Boyce, B.A., Red Deer; F. S. Carr, B.A., Innisfail.

A committee of three consisting of H. A. Malcolm, F. M. Oldham, and Dr. George were appointed to draw up a constitution and by-laws and submit the same to the directors for their approval. To have the same printed when so approved and given to the members. This was done.

Branches have been formed at Innisfail and Red Deer. The following is a list of members to date:

His Honour G. H. V. Bulyea, Lieutenant Governor of Alberta.	
Premier The Hon. A. C. Rutherford.	
The Hon. Frank Oliver.	
The Hon. W. H. Cushing.	
The Hon. Senator De Veber, M.D.	
Geo. Harcourt, Deputy Minister of Agriculture.	
John Simpson, M.P.P.	Innisfail.
N. B. Sanson	Banff.
Jas. Jenson, J.P.	Innisfail.
Dr. H. George	Innisfail.
F. Dippie	Calgary.
A. Hudson	Millarville.
C. Garrett	Didsbury.
J. T. Boyce, B.A.	Red Deer.
F. S. Carr, B.A.	Innisfail.
W. Geary	Innisfail.
Col. Wyndham	Gleichen.
W. H. Warden	Pine Lake.
E. S. George	Innisfail.
G. R. Westland	Innisfail.
F. Oldham	Innisfail.
W. G. Mackay	Calgary.
E. B. Nowers	Innisfail.
E. Robinson	Eagle Creek.
T. Jenson	Innisfail.
Rev. W. Sykes	Innisfail.
F. V. Lumb	Innisfail.
E. Mackenzie Grieve	Eagle Creek.
P. B. Gregson	Blackfalds.
L. C. Harry	Innisfail.
Walter Raine	Toronto.
Grant Geary	Innisfail.
H. A. Malcolm	Innisfail.
Chester Malcolm	Innisfail.
Selby Walker	Calgary.
Miss A. Simpson	Innisfail.
Mrs. Dr. George	Innisfail.
Dr. G. G. Mewbery	Innisfail.
S. P. Fream	Innisfail.
Rev. Allan	Innisfail.
Mrs. (Rev.) Allan	Innisfail.
A. E. Keast	Innisfail.
E. J. Fream	Innisfail.
F. H. Wolley-Dod	Millerville.
Mrs. Playle	Innisfail.
T. G. Onsum	Innisfail.
F. Archer	Innisfail.

## TREASURER'S REPORT.

*Receipts.*

Members' fees direct.....	\$42.00
Members' fees per Branch Secretary.....	3.00
	<hr/>
	\$45.00

*Expenditures.*

F. S. Carr, half Innisfail Subs.....	\$9.00
Printing.....	16.00
Post Cards.....	1.50
Postage Stamps.....	.36
Cash in hand.....	18.14
	<hr/>
	\$45.00

*Report of the Innisfail Branch.*

SIR,—I beg to submit the following report for the Innisfail Branch of the Alberta Natural History Society:

On August 1st, 1906, the members of the Alberta Society met at the museum at Dr. George's residence to consider the formation of a branch. After considerable discussion a president, vice-president and secretary-treasurer were elected as follows:

Mr. Wm. Geary, President; Mrs. Dr. George, Vice-President; F. S. Carr, B.A., Secretary-Treasurer.

It was resolved to have a regular monthly meeting every second Friday in the month. At the meeting in September, Dr. George gave a very interesting discourse on the carnivora of Alberta, using prepared skulls as illustrating material. Owing to lack of time the discussion of the weasel family had to be left to a future meeting.

At this meeting an important step was taken. The branch determined to found a library. As an initial step "Animals," Stone and Cram, was ordered. Also the "Ottawa Field Naturalist" was subscribed for.

At the October meeting F. S. Carr, B.A., read a short paper on the batrachians using live and prepared material. Special stress was laid on the economic importance of these animals. At this meeting, too, a constitution for the branch modified from the main society's constitution was adopted.

On November 9th, the branch held its annual meeting in the Council Chambers, Innisfail. The secretary's report was first read. The branch society had organized August 1st, 1906; since then there had been two meetings, one in September at which Dr. George gave a paper, "Carnivora of Alberta," and one in October, when F. S. Carr gave a paper on "Batrachians."

The membership of the branch was twenty-four, being as follows:

Dr. George.	E. S. George.
G. R. Westland.	F. M. Oldham.
J. A. Simpson, M.P.P.	E. Robinson.
T. S. Jenson.	J. Jenson.
F. S. Carr, B. A.	F. V. Lumb.
Wm. Geary.	G. G. Geary.
H. A. Malcolm.	C. Malcolm.
E. Mackenzie Grieve.	L. C. Harry.
Miss A. Simpson.	Mrs. Dr. George.
E. B. Nowers.	Rev. W. F. Allan.
Mrs. W. F. Allan.	Rev. W. Sykes.
Dr. Mewbery.	S. P. Fream.

The report was received and adopted.



Mr. T. S. Jenson was appointed auditor. After the auditing of the books the treasurer's report was given.

Total receipts.....	\$15.00
Total expenditure.....	4.75

Balance. .... \$10.25

The election of officers then took place. The former officers were re-elected. Wm. Geary, President; Mrs. Dr. George, Vice-President; F. S. Carr, B.A., Sec.-Treas.

Moved by Dr. George, and seconded by Mr. H. A. Malcolm, that the secretary be instructed to write the Alberta Natural History Society asking that the society consider the feasibility of letting the fees cover 1907 since the society had been running such a short time. Carried.

The president then gave a short address covering the history of the society and its aims: educational, moral, physical and economic. Dr. George gave a talk on "Interesting Notes from Fifteen Years' Collecting." Dr. George had many specimens illustrating the animal, plant, geological and ethnological richness of Alberta. He deplored the fact that so much valuable material was being removed to other countries.

Mr. H. A. Malcolm then gave a very practical paper on "Local Noxious Weeds and Remedies." Mr. Malcolm, to illustrate the prevalence of such weeds, stated that his sons had collected seventy species of weeds in one season in his neighbourhood. The imported seed grain, he thought, was most to blame. He discussed remedies that are capable of being used by all. He drew attention to the dirty condition of our highways and the lax enforcement of weed laws. A vote of thanks was extended to those furnishing the programme. The secretary was also instructed to write the mayor and council thanking them for the use of the hall. The meeting then adjourned.

Mrs. Dr. George, the vice-president, painted and exhibited a collection of wild flowers with their dates of appearance. This is a very valuable work and numbers forty-eight varieties.

FREDERICK S. CARR,  
Secretary-Treasurer.

### *Report of the Red Deer Branch.*

A meeting was held at Red Deer to inaugurate a branch of the Alberta Natural History Society on November 20th, 1906.

It was moved, seconded and carried, that a branch be formed and called "The Red Deer Branch of the Alberta Natural History Society."

The officers elected were: President, Rev. Canon Hinchcliffe; Vice-President, Capt. Keast; Secretary-Treasurer, J. McVicar.

List of members:

Canon Hinchcliffe.	Capt. Keast.
J. A. Grant.	Mr. Hill.
J. C. Moore.	E. Wilton.
J. F. Boyce.	Mrs. Dr. Denovan.
Mrs. L. C. Fulmer.	

Meetings to be held monthly at Mr. McVicar's store, every third Tuesday at 2.30 p.m.

A committee was formed on constitution and by-laws.

J. McVICAR,  
Secretary-Treasurer.

## RESOLUTIONS.

Letters were read from several members who were unable to be present. It was moved, seconded and carried, "That the various letters be received and filed." The following resolutions were also passed:

That this society regrets that the Alberta Parliament was not able to see its way clear to continue the grant formerly given by the North-West Territories and hopes that at the next session a grant may be passed.

That owing to the late formation of the society, all 1906 fees cover the membership fees for 1907.

That the officers be re-elected.

That the directors formulate a letter bringing to the attention of the Minister of Agriculture the necessity for a grant being placed in the estimates to establish a Provincial Museum.

That this meeting does now adjourn to meet again on the last Wednesday in November, 1907, at Red Deer.

JAS. JENSON,  
*Secretary-Treasurer.*

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SECOND ANNUAL MEETING OF THE ALBERTA NATURAL HISTORY SOCIETY.

The meeting was called to order by President Dr. George, being assembled in the old school at Red Deer on the 27th day of November, 1907, at 3 p.m.

## THE PRESIDENT'S ADDRESS.

It is with great pleasure I am able to welcome you to the second annual meeting of the Alberta Natural History Society, and incidentally to welcome to Red Deer those of you who do not reside here.

As a society I beg to state that we are alive and, I hope, vigorous; we have many things to encourage us although we have a few obstacles against us. You know it is hard work for the first few years to keep a society of this kind, and in such a vast territory as the Province of Alberta, alive and flourishing, and it is a question of work all the time; the chief burden being upon the shoulders of a few but I assure you for my part it is a labour of love.

Now one of the greatest disappointments I have had this year is the inability of reading to you the annual reports of the Natural History Society for 1905 and 1906 due to the late printing of the reports of the Department of Agriculture for those years; as I think when those reports are spread through the province we shall have many more members for the society and recruits for the ranks of nature lovers and observers.

The second disappointment was the non-receiving of a grant from the Alberta Government. I asked for \$100.00, but we did not get it, either because the Government had so many things to see to, or that the aims of the society were not considered important enough; but water will wash away a stone and I hope by being diligent and keeping our work before the people of the province we may get a small grant in time. This is not of such a very great moment to us, but would greatly help fulfil my ambition of seeing a branch of the inter-



esting and useful society in every electoral district of Alberta and the establishment of museums in the chief towns of those districts to bring the people at large in contact with the animals, birds, insects, and plants of their immediate neighbourhood and so getting to know what are good for the country and what inimical. Another thing I would like to see looked after is the history of this province; events happen so quickly here and are forgotten and if no record is kept authentic dates, etc., are wanting and only oral tradition is left which in future years is regarded as mythical. Even in my short life in Alberta I have seen many changes.

One more point I have adverse to our progress is the treatment we have received from the secretary of the late Territorial Natural History Society, that gentleman not seeing fit to answer letters sent him. There are a few dollars in that society that rightly belong to us and we are unable to obtain any information about it. This is neither courteous nor businesslike of the gentleman in question.

The points to encourage us are the many people we have got who are letting us know that they are interested in the work, and I have the last two years received very many letters giving me information and asking questions which I have always answered to the best of my knowledge. It might surprise some of you to know that after 18 years of study in Alberta on these lines how little I know myself and I feel that a lifetime devoted to these pursuits is all too short to get even a slight knowledge of what goes on around us in the natural history world.

We have two branches of the society, viz., Innisfail and Red Deer. I had hoped to get another formed this year, but owing to my removal from Innisfail and getting settled down in Red Deer I have been unable to get another branch started but will try and do so next year.

They have formed a Historical Society in Edmonton; I was put on the executive committee, but the only communication I have received was a notice to attend a meeting at Edmonton and it was impossible for me to go. If I only had their prospectus I could judge whether amalgamation with that society would be the best thing for us or not.

Now I will bring my few remarks to a close by asking the presidents of the two branches, Innisfail and Red Deer, to read their reports, after which we will hear the report of the secretary-treasurer of the provincial society. Thanking you for the honour you have done me in electing me your president for the last two years, I will now proceed to the business of the meeting.

Letters were read from A. Mitchell, Esq., of Edmonton; N. B. Sanson, Esq., of Banff, and W. Geary, Esq., of Innisfail, regretting their inability to be present at the meeting.

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#### *Report of the Innisfail Branch.*

On behalf of the Innisfail Branch No. 1, I beg leave to report as follows: Since last annual meeting, November 9, 1906, the following meetings have been held: January 11, 1907, at Dr. George's museum with a good attendance. After business had been transacted, Dr. George read a very interesting and instructive paper on the weasels of Alberta, in which reference was made to the raccoon, weasel, marten, fisher, ferret, mink, wolverine, skunk, badger, and otter, discussing

manners, habits, characteristics, differences in formation, special means of offence and defence, etc.

February 8th, 1907, at the museum. After routine, president W. Geary gave a talk on "Bird Nesting," referring to habitat of birds, methods, results, etc., giving many instances from some twelve years' experience as a collector, showing its influence for health, the improvement of powers of observation, love of nature and the beautiful. Dr. George supplemented these remarks by a short talk on the nesting habits of the whiskey jack.

March 8th, 1907, at the museum. After routine, there being no special programme, the president read a clipping from the Ottawa Field Naturalist on a disaster that had overtaken migrating birds during a severe storm on Lake Huron in October, 1906. It was written by W. E. Saunders, Esq., of London, Ont., and described how he had found over 1800 dead birds representing about thirty species during a walk of two or three miles along the shore near Kettle Point. A general discussion followed.

April 12th, 1907, at the institute. After business had been transacted secretary F. S. Carr, B.A., read a short paper on "The snails of Alberta," illustrated by drawings and specimens. This proved most interesting and brought out many questions and a hearty vote of thanks. This was the last meeting held, and although I have made several attempts to hold a meeting nothing has been done. However, an effort will be made to resume the work of the branch at an early date, when it is expected work will be resumed.

The branch has suffered severely by the removal of Dr. George, President of the Alberta Society, and his estimable wife, who was our valued vice-president. This took place in June and was followed shortly after by the removal of our secretary-treasurer, F. S. Carr, B.A., to Edmonton. The removal of three such active and enthusiastic members within so short a time has temporarily crippled our branch, therefore this report is not so full and interesting as it otherwise would have been.

W. GEARY,  
*President.*

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It was thereupon moved by Captain Keast and Mrs. George, and carried, that the report of the Innisfail Branch be received and filed.

Upon motion by Mr. McVicar and Mr. Fiske, it was ordered: That the Innisfail secretary-treasurer be written to, asking for his report of their branch as early as possible for publication.

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*Report of the Red Deer Branch.*

The members of the Red Deer Branch of the Alberta Natural History Society have much pleasure in presenting their annual report for 1906 and 1907. At the regular meeting held June 1st, the Rev. Benj. Goodfield read a paper on "The Common Fly," which was interesting and instructive. There are 16 members in good standing in the Red Deer Branch. B. F. Boyce, B.A., paid his fee in Innisfail although a member here, and J. A. Carswell and F. W. Galbraith, editors of the town papers, were made members of the society for



their valuable services in publishing meetings and 50 cents for each was forwarded out of the funds of the society to the provincial secretary. That leaves \$13.00 as the amount received by the secretary-treasurer for year ending 31st October, 1907. \$7.50 of this amount was forwarded to the general secretary, Innisfail. The amount paid for cash book, postage, etc., was \$2.35, leaving a balance in hand of \$3.15. At the annual meeting held October 15th, 1907, Canon Hinchcliffe, president, tendered his resignation, which was accepted with regret. The Canon is now living in Chilliwack, B.C. The society has also lost a valuable member in Mrs. Dr. Denovan, who has moved from Red Deer. It was agreed at this meeting for various reasons that the paid members for 1906-1907 be considered as paid members for 1907-8.

Officers for 1907-08:

Hon. President—John T. Moore, Esq., M.P.P.

President, Captain Keast.

Vice-President, Mrs. L. C. Fulmer.

Secretary-Treasurer, John McVicar, Esq.

The above with Mrs. (Dr.) George and Mrs. Tollman form the Executive Committee. This committee will also solicit for new members.

As the secretary-treasurer wished to have his books audited, Mr. George Wilton was appointed auditor.

Dr. George's museum is well worthy of being patronized by Red Deer and the vicinity.

JOHN McVICAR,  
*Secretary-treasurer.*

Moved by James Jenson and Mrs. George, that the report of the Red Deer Branch be accepted with a vote of thanks to the compilers of the report and that the same be filed. Carried.

SECRETARY-TREASURER'S REPORT.

The secretary-treasurer made a report of the finances as follows:

To cash in hand at Nov. 28th, 1906.....	\$18.14
Six direct subscriptions of \$1.00.....	6.00
One direct subscription of \$2.00.....	2.00
Received from Red Deer Society.....	7.50
Received from Innisfail Society.....	1.00
	<hr/>
	\$34.64
By payment for letter paper.....	\$4.50
Notices for annual meeting.....	1.75
Postage.....	.14
	<hr/>
	6.39
	<hr/>
Leaving cash in hand.....	\$28.25

Moved by Captain Keast and Mr. Fiske, that the secretary-treasurer's report be accepted subject to the auditor's report. The next business was the election of officers with the following results:

Honorary President—Hon. W. T. Finlay, Minister of Agriculture.

Honorary Vice-President—Geo. Harcourt, Esq., Deputy Minister of Agriculture.

President—Dr. George.

Vice-Presidents—N. B. Sanson, Banff; A. Mitchell, Edmonton.

Secretary-Treasurer—Mrs. F. H. Tollman.

Executive Committee—F. Dippie, Calgary; F. S. Carr, B.A., Edmonton; F. H. Wolley-Dod, Millarville; James Jenson, Innisfail; R. E. Fiske, Hillsdown.

Specimens of several varieties of lichens were exhibited, being sent by N. B. Sanson, Esq., of Banff, but unfortunately the paper on the same intended to be read at the meeting did not arrive in time.

Moved by Capt. Keast and Mr. McVicar, that the next annual meeting be held at Edmonton. Carried.

Moved by Mrs. George and Capt. Keast, that whereas the attendance of certain officers at the annual meeting is almost compulsory, this meeting resolves that the railway fare to Edmonton be paid for the president and secretary-treasurer and the two presidents of the existing branches. Carried.

Moved by Mr. McVicar and Mrs. Fulmer, that J. A. Carswell be auditor for the ensuing year. Carried.

Moved by Mrs. George and Mr. Jenson, that letter paper be printed with the names of the new officers. Carried.

Moved by Capt. Keast and Mrs. George, that the secretary be empowered to get necessary books.

Moved by Mr. McVicar and Capt. Keast, that a vote of thanks be tendered to Mr. Jenson and the secretary-treasurer for the past two years. Carried.

Mr. Jenson briefly responded to the vote of thanks and the meeting closed.

F. H. TOLLMAN,  
*Secretary-Treasurer.*





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